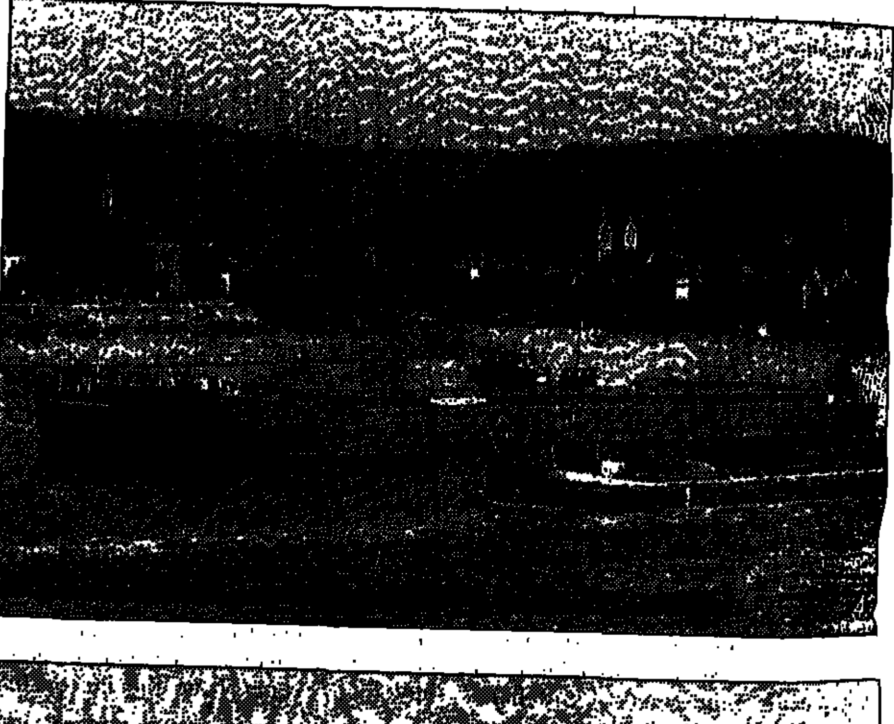
# Routes to tour in Germany

# The Rheingold Route

Rhens
Spay
Boppard
Bad Salzig
St. Goar
Oberwesel
Bacharach
Rheindiebach

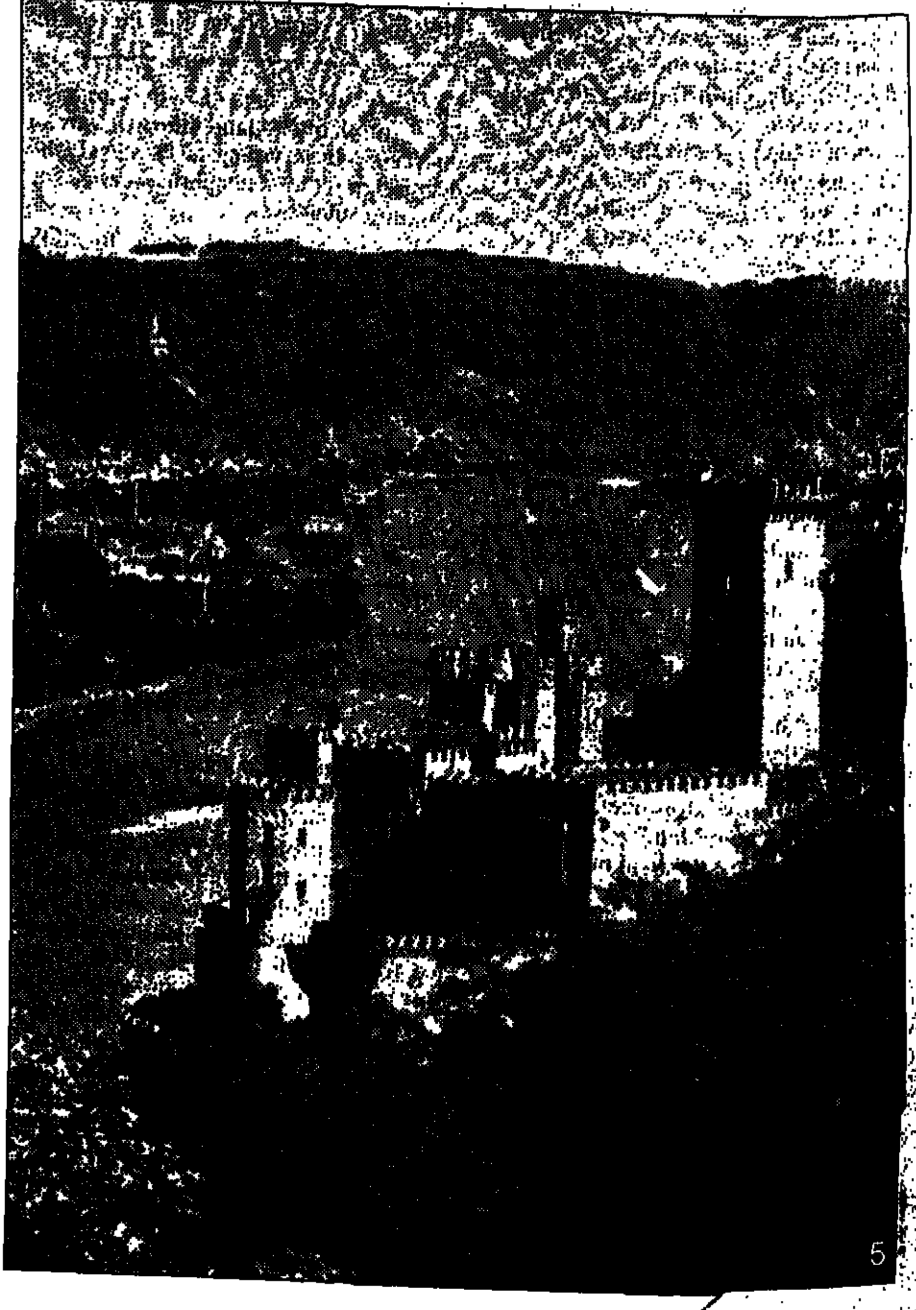
German roads will get you there – to the Rhine, say, where it flows deep in the valley and is at its most beautiful. Castles perched on top of what, at times, are steep cliffs are a reminder that even in the Middle Ages the Rhine was of great importance as a waterway. To this day barges chug up and down the river with their cargoes.
For those who are in more of a hurry the going is faster on the autobahn that runs alongside the river. But *from Koblenz to Bingen you must take the Rheingold Route along the left bank and see twice as much of the landscape.* Take the chairlift in Boppard and enjoy an even better view. Stay the night at Rheinfels Castle in St Goar with its view of the Loreley Rock on the other side. *And stroll round the* romantic wine village of Bacharach.

Visit Germany and let the Rheingold Route be your guide.






1 Bacharach
2 Oberwesel
3 The Loreley Rock
4 Boppard
5 Stolzenfels Castle









**The German Tribune**

Hamburg, 23 November 1986
Twenty-fifth year - No. 1252 - By air

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# Bonn takes a new look at Western defence ideas

DIE ZEIT

Bonn is abandoning some tried and trusted tenets of Western security policy. Although it is acting with surprising outward composure, the changes are dramatic.

The full extent of change prompted by the revolutionary disarmament ideas aired at Reykjavik is still obscured by a smokescreen behind which the US and Soviet leaders are weighing up pros and cons.

The Bundestag made tentative preparations for a new era in its latest security policy debate, preparations understandably hedged by ifs and buts.

It was nevertheless the most significant security debate since the decision to endorse Nato's twin-track missiles-and-talks policy.

The process of adjustment is most difficult where the link between strict disarmament and a new and functioning defence strategy has yet to be established.

It must, moreover, be established so as to ensure that the combination does not land the Federal Republic on the wrong side of the tracks.

Chancellor Kohl in his government policy statement referred not only to far-reaching consequences of nuclear disarmament that called for consideration.

He also mentioned possible, meaningful consequences, saying "Europeans must not be surprised by the historic dimension here taking shape." No-one had addressed the Bundestag in such terms before Reykjavik.

The Reagan-Gorbachov Reykjavik talks first and foremost made short shrift of the Bonn government's evaluation of disarmament policy.

Was disarmament to be viewed as an important objective in its own right or was it also to provide leverage for more security?

Since voting against Nato missile modernisation the Social Democrats have preferred to view security in terms of arms limitation or even disarmament.

Chancellor Kohl and Foreign Minister Genscher have had no intention of losing ground in the contest of ideas on disarmament.

But they have taken care not to neglect priority for security seen in terms of defence policy.

Somewhere or other – security experts have for years crossed swords on where – there is a demarcation line between desirable disarmament and intolerable cutbacks in defence capability.

Just where does the line lie? That is the latest point at issue.

The 1967 Nato formula outlined in the Harmel Report has so far been the equation governing defence commitments and the desire for detente and disarmament.

Chancellor Kohl clearly feels this formula is no longer sufficient. He introduced a new concept in the Bundestag debate, saying in his report on his talks with President Reagan about the Reykjavik summit:

"I encouraged him (President Reagan) to continue this process of political agreement and understanding by means of arms control to a responsible security policy extent."

This proviso is fundamentally beyond reproach, but in having been expressly emphasised when it was, it expresses a demonstrative reservation about conceivable agreements between the superpowers.

Joint declarations by Nato allies invariably include the maxim that disarmament is an integral part of security policy. This was a point Herr Kohl was able to reiterate.

But President Reagan paid scant attention to America's allies in Reykjavik.

Whether agreement really may soon be reached on strategic missiles, excluding bombers and cruise missiles, being scrapped in two stages within a decade is only one side of the coin.

Off the record government officials and experts in many capital cities are extremely sceptical whether it can.

Yet it is nonetheless a mainstay of long-term thinking in the corridors of power by virtue of being the negotiating position adopted by the superpowers.

Bonn is adjusting to America being less likely to be prepared to use nuclear weapons in a conflict that looks as though it might be limited to Europe.

Bonn has definitely been taken aback by plans to scrap entirely medium-range missiles with a range of more than 1,000km (625 miles).

The German government may have endorsed this zero option, reaffirming it last spring. But it never expected it to happen.

Yet little was left in the Bundestag debate of the initial surprise at the zero option for medium-range missiles in Europe envisaged at Reykjavik.

That still leaves unanswered the question whether the proposed zero option is an inroad into joint transatlantic security, especially bearing in mind the reason given to justify the stationing of Pershing 2 missiles in Europe.

The missiles would, it was argued, bring Europe and America closer together. Do other nuclear weapons suffice to flesh out America's guarantee of European security, as Richard Burt, US ambassador in Bonn, is now at pains to emphasise?

Reykjavik is increasingly proving to have been the deepest caesura for decades in the tradition of Western security thinking. The questions raised in the Icelandic capital have yet to be fully answered.

The Bonn government is now under twofold pressure. It does not want to lay itself open to allegations of dragging its feet on disarmament, but it doesn't want to say nothing about its worries either.

The first is that the Soviet Union enjoys an alarming superiority in medium-range missiles with ranges below 1,000km, with the West having little or nothing to offer in the shorter, tactical ranges.

The second is that Bonn fears limitation of the nuclear deterrent could have fateful repercussions as long as the East retained its substantial advantage in conventional arms.

It is hard to see how this advantage could possibly be offset.

The Opposition would like to neutralise these problems by negotiation, including the target of a nuclear-free corridor in Central Europe jointly proposed by the Social Democrats and the East German ruling party, the SED.

Western governments in general, and not just Bonn, will hear nothing of this idea.

The official view in Bonn is that the danger of a fresh "grey zone" in shorter-range nuclear missiles can be averted by striking a balance.

The aim is to reach agreement on identical ceilings for Nato and the Warsaw Pact at as low a level as possible.

In principle that would entitle Bonn to redress the balance if need be by stationing new short-range nuclear weapons.

The very idea deeply shocks and upsets everyone, but for the time being it seems to be mere theory.

What Bonn has in mind is an agreement ensuring balance in this weapons category. Whether use is ever made of the entitlement to station weapons in this category is another matter entirely.

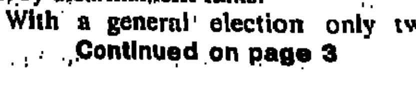
The Federal government's aim is a mixture of strict disarmament and residual nuclear deterrent. It would also like to end conventional inferiority.

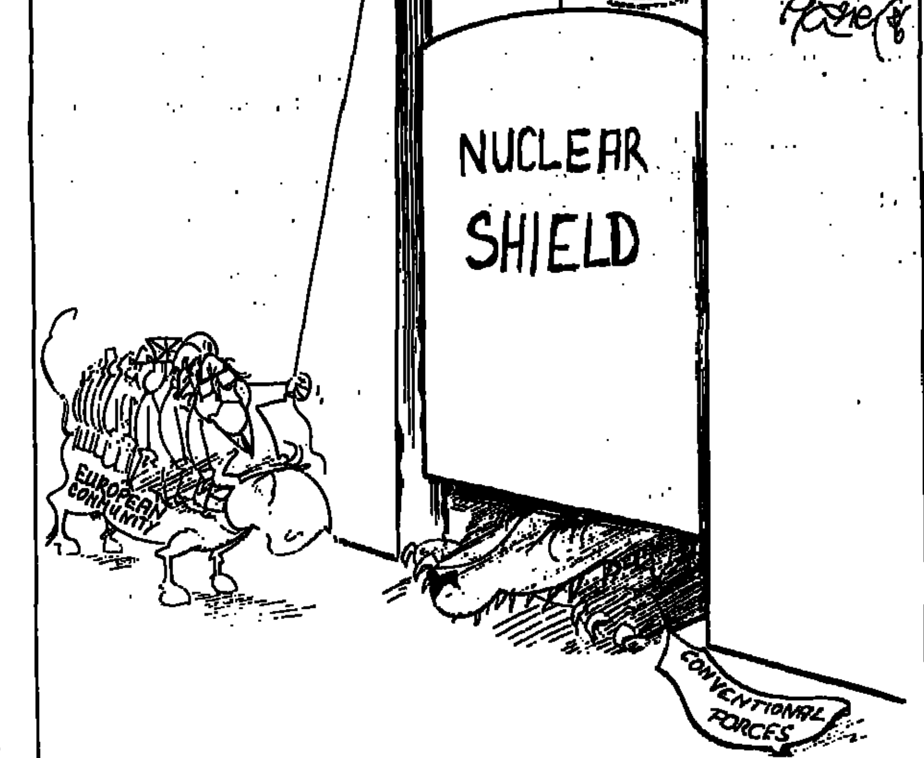
The Bonn Opposition calls in contrast, as it did 30 years ago, for an immediate start to a nuclear-free zone in Europe, possibly to be extended at a later date to the entire continent.

The Social Democrats would prefer to eliminate the conventional imbalance not by supplementary arms expenditure but by disarmament talks.

With a general election only two

Continued on page 3






(Cartoon: Walter Hanel/Frankfurter Allgemeine Zeitung)

## IN THIS ISSUE



■ WORLD AFFAIRS

# Mankind's little problem: a small-scale storm in a nuclear teacup

DEUTSCHES ALLGEMEINES SONNTAGSBLATT

It has been known for a long time that Israel has nuclear weapons. A senior Israeli officer admitted as much on 14 October 1973, during the Yom Kippur War.

Addressing a small group of foreign military observers and journalists including the writer, he left no doubt that his country would, if sufficiently threatened, use weapons "the effect of which has been known since Hiroshima and Nagasaki."

He made this point in Beersheba, not far from the Israeli nuclear complex at Dimona.

Twice at private gatherings President Katzir of Israel later admitted that his country had nuclear weapons.

In accounts of the Yom Kippur War several Israeli authors have noted that at a critical stage of hostilities Israel had third states relay strong warnings to Egypt and Syria.

If they were to stage deliberate, large-scale air raids on Israeli cities such as Tel Aviv and Haifa, Israel would wreak "fearful retribution."

Self-censorship or Israeli military censorship, which is particularly strict on this point, has prevented the publication of such reports, based on serious sources, in Israel.

Yet there need be no doubt that they are basically true. Israel is a nuclear power.

Its immediate adversaries certainly assume it to be one, as was shown by the tactics to which Arab delegates resorted at the 30th general meeting of the International Atomic Energy Agency in Vienna last month.

In the wake of Chernobyl the safety of civilian power reactors was the principal issue discussed. One of the IAEA's main tasks, monitoring observation of the nuclear non-proliferation treaty, was relegated to a back-seat role.

This task consists of inspecting non-military nuclear facilities in member-countries to make sure that non-nuclear powers do not set aside from the fuel cycle fissile material that could be used in nuclear warheads.

Arab states sought instead to commit all 113 IAEA member-countries to ending cooperation with Israel in nuclear science and technology.

This motion was shelved after strong Western reactions, but the aim of the Arab move is unchanged.

At the same time Islamic Arab members of the IAEA undermined, as they have done for years, all attempts to discuss other breaches of the non-proliferation treaty that are considered either a strong possibility or an established fact.

In such instances a trend is apparent, in the IAEA as in other international bodies, of which the former UN high commissioner for refugees, Sadruddin Aga Khan, has volubly complained.

As one of the few international personalities who has voiced unmistakable views on the subject, he said for instance that intensive efforts to develop nuclear weapons were being undertaken in the Third World even though they might only be unpretentious little bombs.

"There is (in the Third World) a groundswell of thought," he said, "that the Bomb is dangerous and has a destabilising effect. But since others fail to question nuclear weapons, why should Third World leaders abandon their ambitions to manufacture a Bomb of their own?"

Some such "groundswell of thought" seems to have prompted Pakistan Premier Zulfikar Ali Bhutto in the 1970s to say:

"There is a Hindu Bomb, a Jewish Bomb and a Christian Bomb. There must be an Islamic Bomb too."

Bhutto has long been dead, but little detailed proof is needed to show that his ideas on an Islamic Bomb are still alive and well.

Debates on nuclear weapons in the Third World discuss almost without exception the potential for nuclear destruction of the known, established nuclear powers.

Analyses such as a spring 1985 report to the US State Department which make it clear that the consequences of nuclear hostilities between the superpowers and their pacts would be catastrophic for the Third World go virtually unheeded in public.

This outlook temptingly leads to the alarming view that possession of "small nuclear weapons" of one's own is entirely legitimate, not to say advisable, especially if regional adversaries show signs or are suspected of similar ambitions.

Such views make it clear that the non-proliferation treaty has already been set aside in the mind's eye even though few countries are in a position to do so in practice and any idea of doing so is out of the question for most Third World states.

Yet it is a myth to assume that exceptional technology is needed to develop nuclear weapons.

As the Aga Khan put it: "The very commercial interest of Western firms keen to sell (non-military) nuclear installations all over the world makes it possible for there to be enough plutonium or uranium around from which to make a Bomb.

"Developing nuclear weapons of their own is a task many governments are capable of solving."

India proved the point for many Third World countries when, on 18 May 1974, it detonated a nuclear device of its own in the deserts of Rajasthan.

Delhi may have given repeated assurances that it was only a "non-military" detonation, but scientists (and IAEA officials) are sure that India has the potential to produce nuclear weapons, modest or otherwise, whenever it so wishes.

The more alarming aspect in India's case is the rivalry between it and Pakistan. Bhutto's reference to the "Islamic Bomb" was due in part to suspicions that Israel already had nuclear weapons of its own and in part to rumours that India had similar ambitions.

Bhutto was ousted and executed, his policy was condemned. But his nuclear course has been retained, as straight as a die, by his adversaries and successors.

International experts are convinced Pakistan had long collected enough nuclear fuel to "produce at least a dozen nuclear weyapons in the next three to five years," as US Senator Alan Cranston put it in June 1984.

In 1979 President Carter froze US economic and military aid to Pakistan because, he said, Pakistan planned to develop nuclear weapons.

After the Soviet invasion of Afghanistan US aid was resumed and substantially increased in 1981. Economic and military aid, in a ratio of about 1:1, will have totalled $3.2bn between 1982 and 1987.

As in Senator Cranston's case in 1984 there could be domestic reasons for the latest Senate attempt, initially by the Democrats, to have US aid to Pakistan frozen again.

The argument for so doing is that Pakistan has even stepped up its nuclear arms programme. But independent, authoritative US scientists have rubbed their finger in the wound.

They refer to the capacity of the Kanupp power reactor near Karachi and, in particular, to the Cashma reactor, where uranium could be converted into plutonium.

The Cashma project has been declared top secret and out of bounds to external inspection and control.

Saint-Gobain, the French manufacturer, pulled out of the project under US pressure. But leading US expert Professor Harold Freeman says Pakistan still has the blueprints.

Pakistan owes much of its know-how to nuclear physicist Abdul Qadar Khan, who spent three years working at a uranium enrichment plant in the Netherlands.

He disappeared with a large quantity of documents (for which he was convicted and sentenced in absentia by an Amsterdam court).

He is now officially employed at the Kahuta uranium enrichment plant in Pakistan — as its director.

Pakistan's official statements on nuclear armament are evasive. A vehement media attack by *Pravda* and Radio Moscow was dismissed more or less in passing, while Western criticism is practically ignored.

Other governments accused of developing nuclear weapons operate in much the same way. South Africa for instance has dismissed similar accusations as "laughable."

A June 1981 Nairobi declaration by the All-African Council of Churches on militarism and militarisation went largely unnoticed elsewhere in Africa for that matter.

It drew the churches' attention to the nuclearisation of South Africa yet to little avail even though this passage in

Continued on page 3

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# A message to Damascus — but what sort of message?

Süddeutsche Zeitung

British Foreign Secretary Sir Geoffrey Howe called the sanctions imposed on Syria by the European Community the clearest possible message to Damascus.

Maybe he meant it ironically; maybe not. There can be no denying the double meaning of his statement. The sanctions as agreed do not even amount to the lowest common denominator.

As usual, the Greeks broke ranks, their Foreign Minister smugly saying he wasn't a detective and so in no position to judge a British court's finding that Syria was behind a bid to blow up an El Al jumbo jet.

Even so, 11 of the 12 European Community governments reached agreement, after the failure of negotiations a fortnight earlier, on sanctions not entirely lacking in bite.

Syria is no longer to be sold arms by European Community countries. Visits by senior officials have been cancelled. The activities of Syrian diplomats in the European Community are to be checked with a view to "suitable measures."

Last not least, security measures for Syrian Arab Airlines aircraft are to be intensified — whatever that may mean in practice.

Europe has at least spoken. A fortnight earlier the Common Market countries could agree only to disagree.

France and Germany are largely responsible for the decision not to condemn Syria in stronger terms. France and Germany jointly insisted on restraint.

For weeks the French Premier, M. Chirac, has made it clear that French hostages in Syrian-controlled Lebanon are more important to the French government than a united front against state terrorism.

Who can blame the French when even Washington has sought behind a smokescreen of strong words, to strike a bargain with Iran for the release of US hostages?

Democracies set greater store by human life than by raison d'état. That is their strength. It is also their weakness in fighting regimes that have no such scruples.

(Süddeutsche Zeitung, Munich, 12 November 1986)



■ HOME AFFAIRS

# SPD general-election hopes plummet after disasters in the Länder

The SPD's election defeats in Hamburg and Bavaria were so heavy that no one now seriously believes that it can win the general election in January.

There is simply not enough time to develop new, more appealing election strategies or to consider nominating a new candidate for chancellor to replace Johannes Rau.

Rau emerged victorious in the North Rhine-Westphalia *Land* election a year ago (he is Premier) but has been looking strangely pallid ever since.

Rau declared, against the instincts of a lot of doubters, that the SPD was going for an absolute majority in the general election. In all probability even Rau himself did not believe that this was a realistic aim. (Following the Hamburg election, the SPD has changed its mind.)

Now it's too late for strategic adjustments. It is always difficult to get rid of a government when most voters feel content.

The increase in real incomes this year has been higher than at any time in the last ten years.

The Neue Heimat affair has been weighing heavily on the SPD. (The heavily-in-debt house-building and property group was sold to private interests for one mark. But it has now been sold back again for a mark following the refusal of bankers to release the trade-unions holding company from debts runup by Neue Heimat. The entire affair has left a taste of union incompetence which has rubbed off on to the Social Democrats.)

The situation has changed for the Social Democrats since it became clear that the Greens were not just a will-o'-the-wisp in German politics.

The Greens, however, still cannot be regarded as an established party. They had spectacular defeats in Saarland and North Rhine-Westphalia a year ago and looked for a while as if they were on the wane.

Saarland's Premier Oskar Lafontaine and North Rhine-Westphalia's Premier Johannes Rau showed that an SPD policy catering for a broad spectrum of voters was able to persuade many potential Greens voters to vote for the SPD instead.

For obvious reasons this approach doesn't work today.

First, the Greens are a party of protest. Their popularity reached its peak at the height of the peace movement and anti-missile deployment demonstrations and today coincides with the fears conjured up by the names Chernobyl, Cattenom and Wackersdorf.




Second, their recent election successes show that the party is strong when "nothing" is at stake.

Rau and Lafontaine were able to push the Greens to one side because the voters believed in and wanted an absolute majority for the SPD.

This was not the case in Hamburg and certainly not in Bavaria. Rau will have to face up to the same problem in January.

Doubts about an SPD general election victory may persuade many potential SPD voters to vote for the Greens, partly out of protest and partly to show the SPD that for many left-wing Social Democrats the idea of a Red-Green alliance in Bonn is not such a nightmare after all.

In this sense, the situation of the Greens is mirror-inverted to that of the FDP. The Greens get more votes when very little seems to be at stake, whereas — as in Hamburg and Bavaria — the FPD then drops out of the running.

The FDP acts as a coalition-maker, whereas the Greens are still not accepted as a possible coalition partner either because they don't want to be or because they are not wanted.

This is the SPD's dilemma. As SPD left-wingers quite rightly point out the party only stands a chance of taking over government power in the near future if it sets its sights on an alliance with the Greens.

For as long as the Greens are represented in the Bundestag there will be no left-wing majority without them.

However, a decision to move towards the Greens also involves risks for the SPD.

A joining of forces with the Greens would mean that a clear dissociation from this party, as in Saarland and North Rhine-Westphalia, would no longer seem plausible.

As a result the SPD would not be able to claim that it is the sole representative of left-wing beliefs.

An acceptance of the Greens by the SPD just to secure majorities would allow the Greens to benefit from the "FDP effect".

People would vote for the Greens when political majorities are at stake.

A further critical aspect of a Red-Green alliance would be a shift of emphasis within the SPD from the political centre to the left.

An alliance with the Greens would require concessions in the fields of energy, environmental and economic policies, concessions which might scare off the more middle-of-the-road supporters of the SPD.

The SPD would probably also have to alter its security policy course, making Bonn an outsider in the western world.

What looks like turning into a long-term dilemma for the SPD is already a problem for Shadow Chancellor Rau.

He has got to soak up votes from the Greens, but in focusing on the main election issues discussed by the Greens he strengthens their position.

He basically agrees with their complaints, but is unable to keep pace with their uncompromising ecological stance.

On the other hand, Rau needs votes from the political centre, which mistrusts the slogans of SPD left-wingers and the SPD's talk of a phaseout of nuclear energy.

A majority is not in sight.

It's too late to take the necessary steps to change this situation.

A sudden declaration of support for Red-Green collaboration would make Rau look completely implausible.

What is more, at the moment a Red-Green majority probably doesn't exist anyway.

*Thomas Löffelholz*

(Stuttgarter Zeitung, 13 November, 1986)

# Defence ideas

Continued from page 1

months away profound deliberation is an unlikely immediate prospect. But a thorough reappraisal of security policy will then be due.

This policy review would best be undertaken in conjunction with Britain and France. Europe's views can only carry weight if they more or less tally from one country to the next.

But agreement will not be easy to reach. Britain and France are nuclear powers and reacted accordingly, with shock and doubt, to Reykjavik.

They set great — arguably too great — store by the Federal Republic's conventional defence strength.

*Kurt Becker*

(Die Zeit, Hamburg, 14 November 1986)

Continued from page 2

the declaration was based on military intelligence.

The nuclear non-proliferation treaty has long been undermined in spirit. All over the world there has been a considerable increase in the capacity from which nuclear weapons could be developed.

It is no longer enough to refer only to a nuclear threat arising from hostilities between the established nuclear powers.

The use of "small-scale" nuclear devices in a Third World conflict that seemed a storm in a teacup when viewed from the outside could, in the short or long term, prove extremely dangerous for mankind.

*Fritz Schatten*

(Deutsches Allgemeines Sonntagsblatt, Hamburg, 16 November 1986)

# Why Hamburg turned on its favourite party

The SPD met its Waterloo in the Hamburg election. Most people expected it would lose its absolute majority, but few thought it would drop 10 percentage points of the vote and finish up with only 41.8 per cent of the vote, behind the CDU (which increased its vote from 38.6 per cent in 1982 to 41.9 per cent.)

During the past four years, Hamburg has been governed by the highly respected Social Democrat mayor, Klaus von Dohnanyi. The party has been in power in the city for about 30 years.

All election forecasts were wrong. The outcome showed how unpredictable voters can be.

The SPD performance was so bad that many immediately called for Dohnanyi to resign.

So what exactly did happen in Hamburg? Such a defeat can only be rooted in a complete feeling of insecurity by the electorate.

The growing crime rate in Hamburg, the desire for more law and order, and a widespread feeling that the SPD had become lethargic over the years explain why many former SPD supporters voted for the CDU and FDP this time.

Contrary to all expectations the CDU got more votes than the SPD and became Hamburg's strongest single party.

Although the FDP again failed to get the five per cent of the vote needed for parliamentary representation it did much better than during the last election.

One striking feature of this election was that the SPD suffered above-average losses in areas where many voters live in houses built by the Neue Heimat property group.

The conservative and liberal parties had clear gains. There has been a definite swing to the right in the city which is traditionally left-wing.

There was also a surprisingly large increase in the vote for the Green-Alternative party.

For the first time this party had a two-digit share of the vote, yet another sensational aspect of the Hamburg elections.

The fact that all its candidates for the city parliament were women (led by Christina Kukielka) is undoubtedly one reason for this success.

The problems the SPD Senate had in dealing with the affair surrounding the "Hamburg encirclement" of demonstrators also induced many former SPD supporters to vote for the Green-Alternative party.

The SPD is the victim of a tremendous polarisation in the city.

An extremely problematic situation has resulted for the Social Democrats and the city of Hamburg itself.

Once again the Hamburg elections have led to a stalemate situation.

Which party should govern the city? The SPD in a minority government tolerated by the CDU, the SPD and CDU in a Grand Coalition or the SPD (or even the CDU?) in a coalition with the Greens?

If the SPD decides to form a coalition with the Greens it would go back on its promise (as it did in Hesse) and leave the SPD at federal level with a lot of explaining to do.

A Grand Coalition with the CDU, however, would undoubtedly strengthen the position of the Greens in Hamburg as a reservoir for left-wing opposition.

The only other alternative, apart from new elections of course, is a minority SPD government. But how long can that last?

Understandably, the SPD's candidate for chancellorship in Bonn, Johannes Rau, didn't want the Hamburg elections to be regarded as a test election for Bonn.

Nevertheless, the result of the state elections in Lower Saxony in the summer, the disastrous election result in Bavaria and the bitter defeat in Hamburg make one thing clear: it's uphill all the way for the SPD in its struggle for power in Bonn.

The Social Democrats are bound to have been disheartened by the election result in Hamburg.

How can Johannes Rau now seriously talk of an absolute majority for the SPD or even an election victory on 25 January without running the risk of being ridiculed by the voters?

It almost looks as if the general election in January is already all over bar the shouting.

*Jürgen Offenbach*

(Stuttgarter Nachrichten, 10 November 1986)

■ WEAPONRY

# Genetic technology aids germ warfare research in spite of treaty

Signatories to the Geneva Protocol of 1925 agreed never to use biological and chemical weapons because of the terrible damage they can inflict.

In 1975 an international convention outlawing biological and toxic weapons came into effect. Up to the end of 1985 this convention had been signed by 103 states.

This convention made it illegal to develop, produce and stockpile biological weapons.

The ban, however, only covered types and quantities of germ weapons "that were not produced for prophylactic, protective and other peaceful purposes."

These exceptions were the convention's weak point. Pathogenic agents, which make biological weapons possible, could be used in research into protective measures. It followed then that research into defence against germ warfare was permitted under the convention.

Thus genetic technology made an appearance into biological weapon research. Peace researcher Alfred Mechtersheimer said: "Genetic technology made the use of biological weapons that much more interesting."

Previously the attacker was concerned that he himself could be infected by the pathogenic agent used as a weapon, but today vaccines, produced with the aid of genetic technology, give protection against such an eventuality. Genetic technology takes care of "rearmament."




Until the end of the 1960s bacteria were presumably produced for biological weapons, but today viruses take precedent.

Scientists engaged in military research see in them one decisive advantage over bacteria; there is no specific therapy against virus infections.

The micro-organisms themselves and their poisonous by-products, toxins, are of interest for producing germ warfare weapons. Some of them, the tetanus toxin for instance, are far more poisonous than the dioxin that contaminated the Italian town of Seveso.

These highly effective substances can be investigated far more easily, using new bio-technological methods.

Nevertheless biological weapons have become a dreadful threat since the introduction of genetic technology.

Erhard Geissler of the Science Academy in East Germany said: "The advances made in biological weapons should not be quoted as an argument against genetic technology."

Together with the Stockholm-based Peace Research Institute he has recently published a book entitled "Biological and Toxic Weapons Today."

The first use of biological weapons in 1347 led to one of the greatest catastrophes that has ever afflicted Man.

Tartars were besieging Kaffa, founded by Genoan merchants in the Crimea as a trading post. The merchants fought the Tartars, it is believed, for three years, then plague broke out among the besiegers. The country from which the Tartars came was one of the few areas infected by the plague.

The Tartars decided upon an act of desperation. They catapulted their warriors' corpses over the walls of the Genoan fortress.

The plague swiftly spread among the Italians. In panic the surviving merchants boarded their ships and made for Genoa.

From there the plague, known as the Black Death, spread throughout Europe, claiming an estimated 25 million lives within five years. This represented between a quarter to a third of the European population.

Fortunately research by British scientists into biological weapons on the island of Gruinard off the west coast of Scotland in 1941 and 1942 did not reach plague proportions. The British scientists dropped a small bomb there containing an anthrax bacillus.

Thirty-seven years later, in 1979, scientists found traces of this pathogenic agent on the uninhabited island. This year the British have cleaned up the last traces of this contamination.

The director of the British institute for chemical warfare defence, Mr Watson, said in a BBC interview that the experience with Gruinard showed that biological war would make Aachen, Berlin, Frankfurt, Hamburg, Stuttgart and Wilhelmshaven uninhabitable.

Over the past few years viruses have featured more and more in lists of possible biological weapons. Many of the new viruses cause haemorrhagic fever, an illness whose symptoms are bleeding and fever.

Many of these viruses have only recently been discovered. The Lassa virus was found for the first time in northern Nigeria in 1969.

The Ebola virus was found in southern Sudan and northern Zaire in 1976. Fifty per cent of people infected by Ebola fever die.

Pathogenes of well-known illnesses such as yellow fever, smallpox and hepatitis A have been known for some time.

In the past working with viruses, that are highly infectious, was very dangerous, so that many of them were not developed for use as biological weapons.

Now, using genetic technology methods, the genotype of the virus can be employed in safe bacteria, making the research that much more simple.

There are two reasons why viruses are preferred for biological weapons. First, there is no specific therapy against virus infection; and second, the symptoms of virus infection are so ill-defined that it is dificult to differentiate them from the symptoms of other illnesses.

This is particularly true of viruses that cause meningitis and haemorrhagic fever. It follows then that it is difficult to prove that biological weapons have been deployed.

Today it is relatively easy to make bacteria resistant to antibiotics into which resistant genes have been implanted. This means that typhus, that can normally be treated by anti-biotics, would be lethal.

Modern biology can construct pathogenic agents on the drawing-board.

A case in point is genetic changes made to the vaccina virus, the virus administered as a smallpox inoculation.

Genetic information can be built into the virus's genotype from three other viral types simultaneously. These experiments aid the production of vaccines.

It is also technically possible to implant genes, that produce highly toxic poisons, into vaccine viruses.

Erhard Geissler writes in his book that "A very efficient biological weapon would be a smallpox virus with a poisonous gene, since mass inoculation against smallpox is no longer undertaken."

Military scientists have been more and more interested in the poisons themselves in the past few years. In contrast to bacteria and viruses they have the military advantage that they take effect more quickly and do not breed out of control.

The military regard them as chemical weapons, since they are often more poisonous and can exterminate people using much smaller quantities.

In the Stockholm Peace Research Institute book it is estimated that about 20 toxins are on the possible weapons' list.

The tetanus toxin, for instance, is one of them, made from the tetanus pathogene. Less than a millionth of a gram can kill a person. About five kilograms would annihilate the population of the world.

There is nothing quite so poisonous as botulin, produced from the bacteria clostridium botulinum. Botulism is known as sausage-poisoning or poisoning from tinned food affected by the botulinus bacteria.

When the genetic code of a toxic gene has been decoded — today a routine matter — it is possible to produce this gene, if it is not too large, synthetically.

Toxins that include little amino acid, the basis of albumin, can be produced synthetically in the laboratory.

Because toxins can be packed away in the smallest of micro-capsules, they can be easily sprayed into the air by the colloidal system, aerosol.

People would hardly notice that the poison was being used.

Biological weapons have not only become more frightful in the past few years, but the likelihood that one day they would be used has become more real because attacking troops can now be protected by new vaccines.

Countries, that have signed the convention outlawing biological and toxic weapons, are pressing ahead with research into defence against vaccines that could possibly be produced as biological and toxic weapons.

There are already vaccines against a number of possible biological weapons such as anthrax, plague and Rift Valley fever. Efforts are being made to find protection against other viruses and toxins.

Harlee Strauss and Jonathan King of the Massachusetts Institute of Technology doubt that the development of vaccines against potential biological weapons is purely defensive research.

They take the view that it is unrealistic to believe that it is possible to protect the total population against the considerable range of foreign bodies

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■ PERSPECTIVE

# The Community — not all food mountains

Eurocrats, wine lakes, butter mountains and financial problems are just a few of things most people associate with the European Community.

Is this reputation deserved? The figures would suggest so.

This year, for example, the Community has spent 21 billion ECUs, roughly DM45bn, buying up and storing agricultural products within the framework of its intervention mechanism.

This represents 70 per cent of the Community's total budget funds, plunging the Community into even deeper financial trouble.

The European Community's Common Agricultural Policy (CAP) is in urgent need of reform.

Although it is not the Community's only problem it is so predominant that the others are often forgotten.

The fact that the political development within the Community, which is taken for granted today, owes a great deal to European integration efforts also tends to be forgotten.

The Community has at least fostered the ability of its member states to discuss problems at the conference table, even though the course of such discussions often seems illogical and the outcome extremely expensive.

Military conflicts between Community members, however, which after all include the formerly "traditional enemies" Germany and France, are inconceivable today.

Although the Community does not deserve all the credit for this fact its existence has helped safeguard peace.

The 6th symposium of the *Trägerstiftung* in Malente (Schleswig-Holstein) took a look at "The Role of the European Community in the World Economy".

The symposium set out to elucidate the future tasks of the Community, including the creation of an internal market, the reform of the Community's agricultural policy, the integration of new member states (Portugal, Spain), and the promotion of research and innovation.

The vice-president of the Community's Commission in Brussels, Karl-Heinz Narjes, expressed his concern about the fact that Europe was lagging behind the United States and Japan, presenting impressive statistics to confirm his views.

Narjes' remarks made it clear that he feels that the Community's Brussels "headquarters" should play a leading role in changing the situation.

He explictly criticised the fact that the 7.7 billion ECUs made available to the Community by member states over the past five years for research and development only represent two per cent of the total amount allocated for the same purpose during the same period by all Community members.

Admittedly, the desire for "more money for Brussels" is not undisputed.

A view is often taken that trying to establish a common policy in all fields at all costs harms the Community if policy content is unclear.

Just under 30 years after the Treaty of Rome was signed in 1957 the Community is bogged down in several areas.

Apart from the already mentioned agricultural policy problems the Community has been unable to establish a common financial market or solve basic transport policy problems.

Greater progress has been made in other fields, for example, environmental policy and development policy.

Emergency aid for famine-stricken areas are just one aspect.

Differences of opinion still exist, however, with regard to longer-term prospects, export earnings stabilisation and whether priority should be given to greater industrialisation (with widespread trickle-down effects) or to rural development policies (an approach supported by the Commission).

Food aid is also a controversial issue. Critics claim that food aid disrupts regional production structures, changes consumer habits in an alarming way, and creates new dependencies.

Discussions at the symposium in Malente stressed that structural and long-term deficiencies make the provision of aid in this form essential and meaningful.

How will the Community's southward enlargement affect these problems?

As the president of Deutsches Insitut für Wirtschaftsforschung, Professor Krupp, pointed out in Malente the Community's structure will change when new countries join it.

In the already extended Community of Twelve, for example, the agricultural sector is no longer an area of secondary importance which can be financed by a flourishing industrial sector.

Its growing significance will be accompanied by new competitive problems in the Mediterranean region.

The competitive position of countries not belonging to the European Community will also deteriorate in terms of sales prospects for farm products in the Community.

The services sector, in particular tourism, will become more important.

*Finally, the southward enlargement* will directly introduce the North-South problems of substantial cost-of-living differentials into the Community.

The Community will assume an even more varied character.

This will make it more difficult to achieve the Community's ambitious objective of setting up an internal market by 1992.

Süddeutsche Zeitung

Before this can be done a variety of obstacles to the movement of trade, services and capital as well as to the freedom of establishment for private individuals and businesses must be eliminated.

Experts disagree over whether the whole host of national stipulations should be aligned — an undoubtedly time-consuming and highly bureaucratic procedure — or whether it would be better to try and enforce the provisions in the Treaty of Rome relating to competition more effectively.

The latter view was adopted in Malente by the spokesman of the Kiel Institut für Weltwirtschaft, who even recommended that the Commission should take legal action against the Council of Ministers, i.e. the national governments of member states, via the European Court of Justice in matters relating to competition and the prevention of subsidisation.

After the semi-euphoria of the 1960s and the crises of the 1970s the Community now seems to be ready to make a new start.

Financial problems only cast doubts on the means and not on the objectives of Community efforts. *Volker Wörl*

(Süddeutsche Zeitung, Munich, 31 October 1986)

# OECD celebrates 25 years of aid and discussion

**The Organisation for Economic Cooperation and Development was formed 25 years ago. This article written for *Hannoversche Allgemeine*, looks at the organisation's latest meeting and what it has achieved.**

A special conference on the challenges of the international economy marked the 25th anniversary of the Organisation for Economic Cooperation and Development (OECD).

The former French head of government, Raymond Barre, the Danish foreign minister, Uffe Ellemann-Jensen, his Uruguayan colleague in office, Enrique Iglesias, state secretary in the Bonn Finance Ministry, Hans Tietmeyer, and the head of Volkswagen, Carl Hahn, were just some of the roughly two dozen politicians, government officials, professors, managers and journalists from OECD member countries who attended the conference.

The discussion centred on the opportunities and risks facing the world economy as well as on new technologies.

Over the years the OECD has stuck to its guiding motto. As OECD secretary-general Jean-Claude Paye reiterated, the OECD is not a supranational organisation, but a forum for countries to discuss economic issues of mutual interest.

Member country governments have the opportunity to compare their positions and exchange views.

The origins of the organisation go back to the Marshall Plan, when the Organisation for European Economic Cooperation (OEEC) was set up to organise Europe's recovery.

The OEEC had the job of allocating $14bn worth of economic and financial aid and coordinating collaboration between the recipient European countries.

This money, for example, helped the Federal Republic of Germany finance what was to be later known as its *Wirtschaftswunder* (economic miracle).

Once the aid had been distributed the OEEC's task was completed.

In order to ensure that the organisation's intentions did not simply pale into insignificance 18 European countries (to begin with) plus Canada and the USA drew up the OECD convention.

The inclusion of the word "Development" in the organisation's new name underlines the importance attached to close cooperation with developing countries by the industrialised countries.

Other countries have joined the organisation since 1961.

Japan was the first country from the Pacific region to become a member in 1964.

Finland, Australia and New Zealand followed suit, and the OECD now has 24 industrialised countries from the western world as full members.

A review of the achievements of the OECD, which brings together the foreign, finance and trade ministers of member states once a year, reveals a clear shift in economic policy priorities over the years.

During the 1960s, from today's standpoint a decade of prosperity, economic policy efforts concentrated on balanced economic growth and the stabilisation of overall demand in a situation of full employment.

At the beginning of the 1970s greater emphasis was placed on inflationary problems.

The sytem of fixed exchange rates collapsed. Since the oil-price shock in 1973 the OECD increasingly assumed the function of a crisis management institution.

In the energy sector the International Energy Agency (IEA) was set up, but France refused to become a member.

Supported by the OECD secretariat with its staff of 1,710 employees ministers discussed ways of overcoming the recession.

A primary objective was to prevent the crisis from triggering a trade war.

A trade policy standstill agreement was agreed upon at an early stage.

As unemployment grew in the second half of the 1970s more and more analyses were conducted on the labour market situation.

More recently, the OECD has voiced its support for structural adjustments, effective capital markets and a tightening of public spending.

What does the organisation feel about the economic situation today?

The OECD's forecasts have the reputation of being cautious rather than bold.

There was a certain amount of discernible optimism, however, during the organisation's "birthday conference".

Most conference delegates did not feel that there is a real risk of worldwide deflation, since worldwide demand is still substantial and the product range is constantly being changed by technological revolutions.

The conference did not rule out crises, particularly in the field of trade relations.

One French delegate, however, was convinced that international collaboration would help overcome such crises.

Raymond Barre expressed his concern about the marked transformation of financial markets into what he referred to as gambling casinos.

At the same time the conference showed that economic policies are less dogmatic and self-opinionated than a year ago.

The chances of successful international cooperation seem to be increasing.

The OECD has contributed a great deal during the past 25 years towards internationally coordinating economic policies.

The very fact that the economics ministers of industrialised countries regularly meet in Paris may have prevented more aggressive trade policy confrontations.

Observers recall how the antagonisms in economic policy approaches were gradually sandpapered down during previous conferences.

In the 1970s, for example, advocates of a stability course (including representatives of the Bonn government) found themselves confronted by supporters of a forced employment policy regardless of inflationary risks.

Such rigid positions no longer exist. In the meantime, those who at that time felt that the risks to stability were negligible have acknoweldged the advantages of curbing prices.

It has also become clear that the overcoming of the unemployment problem is a long-term and difficult

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In the eyes of the Communist world the Washington-based International Monetary Fund (IMF) must represent a stronghold of the capitalist system.

The Czechoslovakian party newspaper *Rude Pravo* recently published some very strong words about the IMF.

A number of other Communist countries, however, such as Yugoslavia, Rumania, Hungary and Poland, have risked Soviet displeasure by joining up.

China and Vietnam have kept the membership which their predecessor governments entered.

Some critics in Washington feel that Communist countries should not be members of the IMF at all.

But with Eastern bloc countries firmly embedded in the lending system of the free world the benefits of Communist country membership are mutual.

Countries can also become a member of the World Bank and borrow there. This means member countries can demonstrate their creditworthiness to the whole world.

The IMF provides information so other member countries can check on the financial situation of their trading partners. This information is then passed on from official sources to banks and businesses.

Some western countries use their position in the IMF as a lever for political aims.

Others, for example, the Federal Republic of Germany, don't, much to the surprise of many Fund members.

There are repeated rumours that the Soviet Union will soon be joining up and that it is simply waiting for a framework agreement to be drawn up between Comecon and the European Community.

Strange as it may seem there are ex-

■ FINANCE

# East Bloc sups with the IMF capitalist devil



perts on the western side who feel that such a framework agreement would significantly foster peaceful coexistence, as if relations of this kind had not existed between the European Community and Comecon for many years.

These experts also imply that it is in the West's interest to promote supranational tendencies in the Eastern bloc.

There is hardly any discernible connection between the Soviet Union's behaviour towards the European Community and its behaviour towards the IMF.

Until the Soviet Union wishes to raise Western loans on a regular basis it is unlikely to be interested in joining the IMF or the World Bank.

In such an eventuality, it would then be interesting to see what kind of «control» mechanisms the Fund would develop for the Soviet Union.

Of those Communist countries in Europe which are already IMF members Hungary, despite its relatively high debt level of roughly $10bn, does not present serious problems, since it has successful debt management.

In Poland's case (debts of $20bn) cooperation has yet to prove its worth.

The fall in the dollar exchange rate and in interest rates have generally improved the position of debtor countries.

Rumania has caused the IMF several headaches and many members would prefer to see it leave.

1984 Rumanian leader Nicolae Ceausescu ended all cooperation with the IMF over efforts to solve its debt problems, refused a stand-by credit, the acceptance of which generally indicates that the country in question is following IMF recommendations, and stated that in future he wants to pay back his debts the way he wants to.

Rumania's stance could have had disastrous effects on the IMF if other countries had decided to take similar action. The Fund's prestige would have suffered.

Fortunately, at least for the IMF, the Ceausescu experiment ended with a catastrophe and today serves as a deterrent.

Ceausescu's exaggerated export drive policy drained the country of its economic resources and demoralised the population.

Imports cuts, on the other hand, put an end to any noticeable technological and economic progress.

Rumania today still has about $6.6bn worth of debt to pay back.

Its export capacity to the West has diminished and its liabilities vis-à-vis the Soviet Union are increasing.

There is a growing suspicion in the IMF that the statistical data provided by Rumania are unreliable.

This case, it feels, is one reason why despite in some cases enormous debt burdens no Third World country has decided to simply refuse to pay its debts, a course of action frequently recommended by Cuba, for example.

The last non-aligned summit in Harare did not support such an approach, and Peru, which wants to make its debt repayments dependent on its export earnings, stands, at least according to the IMF, alone.

Yugoslavia is a special case. Its economic system has a number of western characteristics.

Nevertheless, the Fund feels restricted by its self-imposed maxim of not discussing the merits of a country's political system in its policies.

The IMF is unable, for example, to directly criticise the probable crux of Yugoslavian economic problems, namely the political and financial shackles on businesses.

All it can do is make indirect macroeconomic postulates: real interest rates (i.e. higher than inflation), regular devaluation to promote exports, free price formation and other measures along market-economy lines.

Since certain relations have become a matter of course the Fund has dropped its stand-by credit system in favour of a system of checks every six months.

This alteration has given the Yugoslavian government under Mikulić greater initial room to manoeuvre.

However, it took little advantage of this extended scope and, in contrast to its own promises, tried to resturn to administrative measures.

The IMF has criticised this rejection of market economy principles. Much to the dismay of the government, this criticism was made known just at the right time.

It was a major reason for the pressure on Mikulic and his dogmatic advisers to step down from their policy course.

The International Monetary Fund, therefore, plays a clearly *political* role in today's Yugoslavia.

This, admittedly, has also led to a situation in which certain individuals and groups simply acknowledge the IMF recommendations they approve of or distort the Fund's recommendations.

The fact that the IMF is bound to discretion makes this easier.

Centralistic elements, for example, have tried to justify the new, centralist and administratively regulated foreign exchange system via reference to IMF recomendations.

In Washington the IMF explained that although it resolutely recommended a central and free foreign exchange market it did not recommend a centralist administration of all Yugoslavian foreign oxchange earnings.

*Viktor Meier*

(Frankfurter Allgemeine Zeitung für Deutschland, 12 November 1986)



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that could be used as biological weapons. A vaccine would give little help to the attacked. Aggressors would have the advantage of being able to vaccinate their troops against the biological weapon used.

King and Strauss see a difference between offensive and defensive research. They hinge their argument on the development of vaccines.

A considerable quantity of the organisms is needed to be able to investigate pathogenes. A byproduct of defensive research of this kind would be the knowledge of how it would be possible to produce and store these organisms in quantity, they maintain.

Despite most people's anxieties there are experts who believe that the likelihood of a germ war is remote. Aggressor troops can be vaccinated before an attack, but it is difficult discreetly to vaccinate a whole population.

The conference to screen the Convention on biological and toxic weapons, that recently closed in Geneva, gave grounds for optimism.

Until now there has been no system of verification, but it was agreed at Geneva that there should be an exchange of laboratory research involving biological weapons. The signatory states also agreed to make known any epidemic outbreaks within their frontiers unusual or generally unknown.

The proposal that the signatory states should make public which vaccines they are working on was rejected by the two super-powers.

Biological weapons could be more dangerous than ever before in the hands of terrorists or fanatics.

In America the environmental protection organisation, Foundation for Economic Trends, has made public files from the American Defence Department revealing that in 1981 several litres of liquid containing the Chikungunya virus disappeared from a laboratory cupboard in Fort Dietrich in Maryland.

In a statement made under oath by the former military scientist Neil Levill who was responsible for virus research at the time, he said that the quantity of virus that disappeared was enough to infect the world's population many times over.

*Christine Broll*

(Süddeutsche Zeitung, Munich, 7 November 1986)



■ SYNTHETICS

# New age of ceramics as an industrial superstuff

**Made-to-measure materials devised by industrial chemists for industrial use have astounding claims made for them. In theory, there is an unlimited number of synthetic materials which can be made to do the job in any given situation. They can be devised to withstand the toughest strains in outer space or to replace blood vessels in the human body. High-performance composite materials are used in the manufacture of tennis rackets and flat springs for vehicle suspension units. Ceramic materials are making a comeback in electronics and the motor industry.**

At the 1984 Hanover Fair the Japanese carmaker Isuzu unveiled a diesel engine made entirely of ceramic material. Claims of a break- through were probably premature; the engine has yet to leave the testbed.

At this year's Hanover Fair, Volkswagen spokesmen said that the technology for such an engine was not yet advanced enough. Yet Volkswagen is working with the material for other components such as the piston cap of a turbo diesel and the rotor of a turbo supercharger.

These are two ceramic components so far developed but not, as yet, to the point at which they can be used as standard parts.

Work is in progress on developing ceramic cylinder head plates, cylinder rings, valve and piston bases and diesel combustion chambers.

There are sound reasons why carmakers are so keen on the new material. Ceramic materials are available in virtually unlimited quantity. They maintain constant temperatures. They are effective heat insulators and resistant to wear and tear.

They are also corrosion-resistant and light in weight, Volkswagen research staff enthuse, as well they might. These are all qualities in demand in engine construction and design.

The new generation of ceramic materials have little or nothing in common with traditional, natural products based on clay or kaolin.

"Modern high-performance ceramics are based on extremely pure oxides, nitrides, carbides and borides," says the chemical industry research fund. "They come in a precisely defined composition and particle shape and are compressed and sintered into compact form."

Carmakers are by no means alone in experimenting with the new materials. Other industries swear by them too.

Computers would be virtually unable to compute without ceramics. As "miniature power stations," to quote Jürgen Bednarz of Siemens, they would break down in the heat wave were it not for ceramic components.

Ceramic parts help to purify effluent in bio-reactors, while — more mundanely — ceramic hobs are a popular feature in modern kitchens.

"Countries or companies unable to process high-performance ceramics in the 1990s in the same way as they process plastics or metals today will find it very hard to hold their own against high-tech competition," says Günter Petzow.

Professor Petzow works at the Max Planck Metal Research Institute in Stuttgart.

The message has long been heard and heeded. Leading firms are in the running, with Hoechst in Frankfurt having joined the pack leaders in Germany.

Last year they bought into Rosenthal Technik, a subsidiary of the well-known china manufacturers. Now known as CeramTec, it is a wholly-owned Hoechst subsidiary.

The Frankfurt chemicals giant seems likely to have invested over DM100m in the new company. Technical ceramics still play a minor role, however. Company turnover at roughly DM231m accounts for a mere 0.5 per cent of Hoechst world turnover.

But the parent company is sure a great future lies ahead for its infant subsidiary. Hoechst has invested DM64m in CeramTec this year alone.

Feldmühle is still the pack leader in Germany. Formerly a member of the Flick Group, Feldmühle claims to lead the field in industrial ceramics. Turnover in this sector totalled DM300m last year. Products ranged from mechanical engineering parts to artificial hip joints and electronic components.

Bayer, the Leverkusen chemicals giant, is also in the running, having just taken over a majority holding in Hermann Starck, the Berlin chemical and metallurgical company, in addition to the stake bought early this year in the Cremer Research Institute.

The aim of the takeover is stated as expansion in "further future-oriented sectors such as high-performance materials, including hard metals and engineering ceramics, and electronics.

Heraeus, a conglomerate based in Hanau, near Frankfurt, plans to concentrate for the time being on ceramics for the computer industry.

The company has just started manufacturing aluminium nitrite, a new ceramic material used in electronics. By the end of the decade it hopes the new production facility will handle 30 per cent of the world market for the material.

Frankfurter Rundschau

There are good reasons why the Hanau group has decided to concentrate on the computer industry. Electrical engineering and electronics are by far the largest customers for what is called technical ceramics.

Wolfram Peschko, head of the new Heraeus company, says they account for an estimated 80 per cent of demand. CeramTec's Edgar Lutz feels 70 per cent is nearer the mark.

They also differ on the volume of *world business.* Estimates range from $4bn to $5bn a year, partly depending on the definition of business in the sector.

Growth is uniformly expected to be brisk, with turnover doubling or trebling by 1995.

At present America and Japan lead the world, impetus being lent in part by the swift development of computer technology.

But Germany is not being niggardly. By 1994 Bonn plans to have invested DM1.1bn in a materials research programme "to strengthen the competitive position of German firms in the key materials technology sector." The state is not just lending ceramics manufacturers a helping hand. Subsidies are also available for research into new composite materials and polymers. The German chemical industry feels it is doing well even without government backing. BASF, the largest of Germany's Big Three chemicals companies, banner-headlines high-performance composite materials as a new chapter in the history of synthetics.



**Anyone for hula-hoop? Hip joint made out of industrial ceramics by Feldmühle.** (Photo: Feldmühle AG)

The uses to which the new materials can be put really do seem to be inexhaustible. They are either tried and trusted or undergoing trials in skis and tennis rackets, cardan shafts and flat-spring suspension units, helicopter rotor blades, aircraft rudders and missile casings.

All these new materials are designed in much the same manner. Glass, aramide or carbon fibre is set in a matrix of duro- or thermoplastic synthetics. The result is a material that is tough and resilient but light in weight.

The market for such materials is still fairly small. World turnover last year is estimated as having amounted to about $1.3bn. But new trends and uses hold forth the promise of above-average growth rates.

By the end of the century turnover is expected to amount to between $10bn and $12bn a year.

Unsurprisingly, given its heavy aerospace expenditure, the United States is most advanced in this sector. Only a heavily-subsidised industry such as aerospace can afford to use what as yet are extremely expensive materials.

But cost disadvantages are steadily being reduced. BASF says the A 310 Airbus's carbon fibre-reinforced epoxy resin rudder is 10 per cent cheaper than an aluminium rudder.

Manufacturing costs have been cut substantially now the unit has been reduced to 96 parts as opposed to roughly 2,000.

So material costs are not the main reason why the new composites are not increasingly used in long-run component production by, say, the motor industry. Low-cost processing techniques are the problem; they have yet to be devised.

BASF are working hard on solutions to problems of this kind in Ludwigshafen. They almost certainly lead the field in Germany, due in part to US "development aid."

The Ludwigshafen parent company bought three production units from Celanese for $350m, including high-performance composite materials know-how.

Hoechst would probably have liked to cream off this know-how, too, but the Frankfurt firm must now throw in its lot with the US parent company.

But Hoechst, like other chemicals companies, is already in business. It, Siemens and Rütgers jointly own Sigri, a firm that has recently opened the first German carbon fibre production plant.

Enka, an Akzo subsidiary, began manufacturing carbon fibre in Oberbruch, near Aachen, early this year.

Akzo, a Dutch group, are as big in chemicals as BASF, Bayer and Hoechst in Germany, DuPont in America or ICI in Britain.

All are leading producers of what are known as technical synthetics.

Carmakers seem likely to remain their main customers. The motor industry already buys 250,000 tonnes a year, 60 per cent of which is used in car interiors.

But plastic is definitely gaining ground throughout. Volkswagen are testing camshafts made of composite materials — plastic — in experimental engines.

The motor manufacturers' aim of reducing vehicle weight by using alternative materials is being achieved largely at the steel industry's expense.

But steelmakers are not very worried. Reinhard Winkelgrund, business manager of the steel applications advice bureau, feels synthetic materials have gone about as far as they can, at least in car manufacture.

He does not see plastics accounting for much more than 10 per cent of vehicle weight. They currently make up about eight per cent.

Winkelgrund even claims carmakers are showing signs of scepticism about components made of materials supplied by the chemical industry.

Besides, he says, synthetic materials pose growing environmental problems.

Recycling plastics, especially from cars put through shredders at the breaker's yard, has proved extremely difficult.

Chemicals spokesmen claim most parts can be reused, however, and say comparisons of energy consumption show synthetic materials to be preferable to iron and steel.

Professor Gerhard Wegner of the Max Planck Polymer Research Institute sees a domestic stumbling block of an entirely different kind.

Whether the Federal Republic can hold its own in competition with the United States and Japan will depend to a

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■ BUSINESS

# Hoechst heads list of Euro takeover raids in USA

European companies' buying spree in America is causing alarm, according to American economics weekly *Business Week*.

The magazine recently wrote: "The urge in Europe to buy in America is irresistible, from multinationals such as British Petroleum to small companies such as Sweden's Pharmacia."

The purchases are not small. They involve whole corporations. For instance, the leading French industrial gases group L'Air Liquide paid a billion dollars for the Big Three Industries, Sweden's Elctrolux shelled out $750m for White Consolidated Industries, and British Petroleum paid $500m for Purina Mills.

The magazine, shocked at these raids on US corporations, commented that a new kind of dare-devil capitalism was the fashion in Europe today.

West Germany was one of the leading addicts for this kind of commercial adverturing, *Business Week* maintained.

Early this year Siemens bought up GTE Telecommunications for $420m. Just a few weeks ago Bertelsmann hit the headlines when it acquired America's second largest publishing house, Doubleday, for $475m. This made Bertelsmann the largest media group in the world.

But all this is small beer compared to this week's announcement that Frankfurt-based Hoechst is bidding for the New York chemicals giant, Celanese, for something like DM5.9bn, the most costly take-over in the Federal Republic's history.

Wolfgang Hilger has been chairman of the Hoechst executive board for the past six months. Before any false impressions could be formed he hastened to assure the business community that this is, as the Americans say, "a friendly take-over," actively supported by Celanese management.

Hilger said that in American terms the purchase price was nothing unusual. It was ten per cent over the stock exchange quotation.

If Hoechst had taken action earlier a lot of money could have been saved, even taking into consideration the current favourable dollar-deutschemark exchange rate.

In 1984 Celanese shares struggled to maintain a $70 level. Last year they were valued at $150, now they are quoted at $245.

Hoechst has no problems financing this super-deal. The organisation's "war chest" is well stocked.

At the end of 1985 the balance showed liquid funds totalling DM1.2bn. To that can be added a capital increase of DM883m early this year, and, according to Hilger, there are the profits from current business.

Hoechst has, then, to hand 40 per cent of the purchase price without endangering in any way the company's other investment plans.

The remaining 60 per cent of the purchase price will be raised by Hoechst's America subsidiary on the US capital market.

The executives of other chemicals groups acknowledge with envy that the Hoechst deal is an unprecedented show of strength.

Hoechst was in a tight spot striving to find a stronger position on the American market. Other West German chemicals groups had already improved their position on this market. In 1978 Bayer purchased the chemicals giant 'Miles, that at that time had sales of a billion dollars.

Four years later Bayer acquired the Compugraphic Corporation, a computer technology organisation for the printing industry.

Last year BASF purchased from Celanese a division handling high-quality synthetics for $420m.

Among BASF's other purchases was the coloured printing ink manufacturer Inmont that also had sales of a billion dollars a year.But parallel to this acquisition in America Hoechst had to close down substantial synthetics production capacities. The American Hoechst Corporation could suddenly no longer keep pace with Bayer and BASF. Profits fell to $5.7m last year. The corporation was only able to remain in the black with difficulty.

Even if profits can be sustained in 1986, sales are only likely to increase a modest 5.1 per cent to $1.76bn. Bayer and BASF expect sales in America of $4.5bn each.

The danger for Hoechst is that it will for ever be in third place among the three dye manufacturers.

Things have now changed. Assuming Celanese is included in the group's 1986 international balance sheet, should Hoechst have sales of over $5bn in America, Hoechst would then unexpectedly be in the top place among its West German competitors.

Hoechst would also overtake the other two in worldwide business. There are those even who say that Hoechst will return to top place among Europe's chemicals manufacturers.

BASF was top last year with a turnover of DM47.7bn, Bayer second with




DM45.9bn, and Hoechst in third place with sales of DM42.7bn.

Including the seven billion marks from Celanese Hilger will have achieved a sales figure of over DM50bn.

Hoechst reasons for getting so deeply involved in the American market are the same as those of most companies that extend themselves across the Atlantic.

Wolfgang Hilger said: "The US is the largest closed market for chemicals in the world. But the US market has not had this significance for Hoechst until now."

Siemens boss Karlheinz Kaske spoke in the same way of America's electrical engineering and telecommunications market, and the head of Bertelsmann, Mark Wössner, said the same of the American media market.

German businessmen are united on another point concerning the American market. It is the most demanding in the world and in many areas of a leader in technical progress.

Hoechst, for instance, with the acquisition of Celanese gets access to top-drawer know-how for technical fibres and first-class performance material.

Bernd Kitterer, a foreign trade expert with the German Federation of Trade and Industry, confirmed that West German interest revolved round an important sales market and an interesting



Hoechst's Wolfgang Hilger . . . 'I come as a friend'. (Photo: Hoechst)

country for investment. In 1985 West German investors placed DM13.6bn abroad of which DM7.7bn went to America. Involvement in America has been continuously increasing over the past few years. West German investment in the United States in 1983 was DM22.7bn, in 1984 it rose to DM3.2bn.

Kitterer does not regard this as dramatic or unusual in any way. On the contrary he regards this as a normalisation process. In his view the Germans are late-comers to investment in America.

German investment abroad, in comparison with that of other industrialised countries, is limited. The consequences of the last war is one of the reasons for this.

Broadly speaking the weak dollar is not the reason, so often given, for the current high level of German investment in America, according to Kitterer.

Involvement of this kind requires too extensive a period of preparation to be linked to exchange rate fluctuations.

Much more important is a reason that is little spoken of: the threat or danger of American protectionism.

European companies are establishing production capacities on the spot in the event that one day customs and import barriers exclude them from the American market, only opened up with difficulty. This will enable them to continue their involvement in the American market through "domestic production."

Buying up corporations, a spectacular feature of this year, is in fact an exceptional approach.

A study produced by the German-American chamber of commerce and consultants Arthur Young International shows that of the 2,000 German companies active in America only 21 per cent came into German ownership through purchase. (They employ, by the way, 400,000.)

The study showed that 73 per cent of these companies were newly established operations and six per cent were joint ventures with American partners.

The survey showed also that not all expectations were fulfilled in the land of boundless opportunity.

Thirty-six per cent of the companies questioned showed profits less than had been hoped for. Seven per cent revealed that they operated at a loss.

It has yet to be seen whether Hoechst, Bertelsmann or Siemens will be members of this group, or members of the group that show fat profits of between 25 and 49 per cent on the organisation's basic capital (as 16 per cent of those questioned in the survey claimed).

One thing is certain: even in America there is a limit to everything with growth rates of between 2.5 to three per cent.

*Th. Mönch-Tegeder/B. Salchow*

(Rheinischer Merkur/Christ und Welt, Bonn, 7 November 1986)

# Media giant sits back and waits for the music

Frankfurter **Neue Presse**

Media giant Bertelsmann is taking a breather after its two take-over coups in America.

Executive board chairman Mark Wössner said that the acquisition of the music and recording activities of RCA and Doubleday, America's second largest publishing house, had given Bertelsmann indigestion.

The massive increase in growth with international sales jumping up from the previous DM7.6bn to DM10.2bn has temporarily strained the group's financial resources.

The imposing $850m that Bertelsmann will invest in RCA and Doubleday, is responsible for this.

Bertelsmann has paid less than $500m for Doubleday for certain and a half of this sum can be found from liquid funds. Bertelsmann has a liquidity of DM800m.

If there are no other spectacular acquisitions, Bertelsmann's *expansion* is progressing at a modest pace.

In the group's investment plans totalling about DM900m for financial years 1986/1987 and 1987/1988, up to DM400m has been earmarked for expansion.

The group's most promising field for the future is in the electronic media. Wössner has set his sights on a breakthrough next year, particuarly through participation in commercial television (cable television RTL plus and Radio Lower Saxony).

The group's main activities are now centred on the American media market. This will be consolidated when the take-over of the American companies is completed in December.

Then a third of sales will be achieved in North America — 40 per cent in West Germany and 28 per cent in the rest of Europe.

For Wössner the dual deal in the US, that increases business scope from DM1.5bn to over three billion, is of considerable strategic significance.

Management functions will have to adjust to this new emphasis. The group expertise will be more strongly concentrated towards America.

Wössner has already sent his chief ideas-man and strategist Dornemann to New York. Walter Gerstgrasser has to make the Doubleday book clubs, whose profits are poor, toe the line.

According to Wössner, there is no division in the Bertelsmann empire that is giving any cause for anxiety at the present.

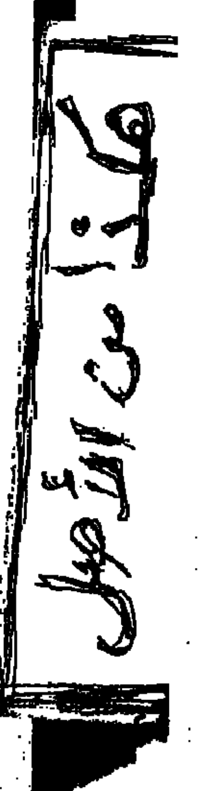
First figures for the financial year just ended show the "splendid condition" the Bertelsmann group is in, according to financial director Hoffmann.

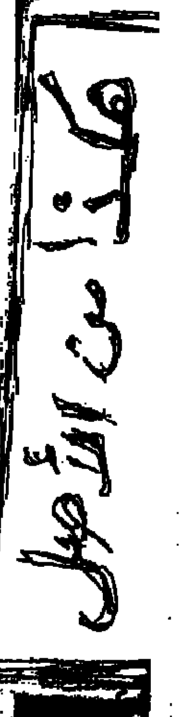
Unfavourable exchange rates are responsible for the sales increase of only 2.2 per cent rather than two digits.

The year's profits were DM325m.

For the next three years the group promises a 15 per cent dividend on funds invested in the group.

(Frankfurter Neue Presse, 6 November 1986)









■ TRANSPORT

# Tests with two-engined buses in city traffic show big fuel savings




West Berlin experiments in which buses have been fitted with two small diesel engines instead of a larger one have shown fuel savings of between 16 and 20 per cent.

The principle is that in the stop-go of heavy city traffic, the larger engine is not used at optimum power. A smaller engine is more economical.

The idea was drawn up at a research institute in which Volkswagen, bus manufacturers Auwärter and the Local Transport Study Group are partners.

It is no coincidence that trials have been held in West Berlin. Fuel supplies to the divided city of two million people, an island in the middle of East Berlin, have always been costly and, to some extent, uncertain.

There has always been an incentive to save fuel. One idea was to use flywheels high-pressure storage units to recycle braking energy for restarting vehicles.

This was too expensive. Conversion cost roughly DM50,000, a lot compared with the DM350,000 purchase price of a bus. The economies in this case would have been towards the end of the vehicle's life. When the twin-engined bus unveiled at the end of last year, it was awarded the city's innovation prize. It is economically much more promising.

The twin-engine concept is based on the fact that the full power of a conventional bus engine is only needed to start the vehicle. Once it is moving a much smaller engine is sufficient. As a result the larger engine does not run at all economically for much of the time.

If the bus were to be powered by a smaller engine once it was on the move, this smaller engine could run at peak efficiency and economy.

Initial experiments have been with twin 77-kilowatt engines instead of a single 147-kilowatt engine.

A clearer idea of the saving is indicated by the size of engine needed to generate this power. The twin engines are 2.4 litres each, the conventional engine is an 11-litre diesel.

The twins are fitted out with electronic transmission and automatic clutch units. They drive a single shaft connected to the rear axle differential.

The two engines run with one almost constantly in operation and the other only in use to give peak power, being switched on when more than a certain amount of power is required — to accelerate, for instance.

Once a cruising speed has been reached the second engine is cut off. When the bus brakes hard, when turning into a parking bay, for instance, the first engine is cut off too. The bus then "freewheels" into the stop to drop and take on passengers.

The driver has nothing to do with the controls that regulate all these operations. Automatic transmission has long been a standard feature of conventional buses. Here too the driver simply has to accelerate or brake.

As gear changes are staggered during acceleration the pressure on clutch linings is reduced too.

Trials have shown the twin-engined buses to handle more satisfactorily, with drivers soon growing used to "free-wheeling" when the engine is cut off.

This is literally what happens. The engine is switched off and doesn't just idle. It switches back on automatically in less than a second when required.

Trials have borne out computer estimates of fuel savings of between 16 and 20 per cent.

The oil and coolant cycles of the auxiliary engine are maintained at the right temperature even when the engine is out of action; this is essential to ensure long engine life.

Two extra power units have been added to make sure the power-assisted steering remains fully operational at slow speeds. One runs at speeds of below 10kph, the other when the engine is virtually idling or switched off.

Since the engine virtually no longer serves as an auxiliary brake an electric retarder has been added to make the bus brake in much the same way as conventional vehicles and, of course, to ease pressure on the wheel brakes.

Yet despite these extras and the twin transmission units and their various electronic controls the twin-engined bus weighs less than standard vehicles.

Weight can be undercut by an estimated 200kg by transferring transmission to the differential.

Stranger still, the twin-engine concept cuts running and maintenance costs even though the larger engine runs twice as long as the smaller (400,000km, or about five years).

That is because the larger engine needs a complete overhaul after about 200,000km. It also costs about DM45,000 new, whereas the smaller unit complete with gearbox costs a mere DM9,000.

The project is being subsidised by both the Federal Research and Technology Ministry and the city's Senator of Science and Research.

*Dietrich Zimmermann*

(Frankfurter Rundschau, 1 November 1986)

Continued from page 7

large extent on the attitude toward innovation in Germany, he feels.

Professor Wegner does not feel particularly confident on this score.

Handicaps can be even more mundane. General Motors overshot the mark with the Fiero, for instance. The much-vaunted new car was to have a body made entirely of synthetics — to save weight.

But it didn't. The Fiero ended up by weighing 80kg more than a comparable Volkswagen Scirocco with conventional pressed steel coachwork.

The project has now been abandoned.

*Mario Müller*

(Frankfurter Rundschau, 8 November 1986)



■ SAFETY

# Thinking ahead and avoiding accidents

Süddeutsche Zeitung

People behave in widely differing ways in an emergency. This is when accidents are likely to happen. Their behaviour is governed by basic senso-motoric processes — sense impressions that trigger movements.

The work done by Dietrich Ungerer and his staff at Bremen University's senso-motoric research laboratory includes identifying risk factors, probing accident causes and devising precautionary measures.

Whether the basic senso-motoric processes run smoothly will depend on the information capacity and information reserves at a person's disposal in a risk situation.

Addressing the 11th international cybernetics congress in Namur, Belgium, Ungerer dealt with the fundamental connection between stress and accidents.

These basic processes were, he said, influenced by disturbances in and the speed of human information processing, by tiredness, by rapid environmental changes, by unusual demands and by difficulties in speech communication.

People in risk situations had to check what was going on and what they heard and saw. They must then guess what was likely to happen next.

The first problem to be borne in mind was, he said, man's limited information capacity.

The ability of a pilot, a motorist or a person in an everyday risk situation to avoid making a mistake depended on how many events he could register and process.

The more tired he was, the greater the stress and the poorer his training, the likelier his information processing capacity was to undergo an upset or breakdown.

Speech communication was a special problem in emergency and risk situations. "Speech," Ungerer said, "can upset information processing to such an extent that behaviour is more risk-prone."

Yet understanding others could be extremely important — communication between crew members in an airliner's cockpit or between cockpit and airport control tower, for instance.

The way in which instructions were given could make it much easier for the pilot to handle a situation. So the Bremen accident research scientists have devised a "preventive" mode of speech communication.

It is intended for use in training and in learning how to behave in a manner conducive to safety.

Preventive forethought by motorists is another problem the Bremen research team is probing, especially now road-users can be found guilty of an offence in Germany if they are proved not to have anticipated an accident.

Drivers must thus bear in mind what might happen and drive accordingly. Experiments in the Bremen senso-motoric laboratory are aimed at determining factors that limit forethought.

The research team then plans to devise methods of boosting the ability to think ahead.

(Süddeutsche Zeitung, Munich, 3 November 1986)

## ■ SOCIETY

# New Jewish centre reflects new mood

**About 30,000 Jews live in West Germany. Forty per cent were born after the war. Frankfurt has a Jewish population of about 5,500, not quite as many as Berlin, which has the biggest Jewish community in the country. A mark of Jewish self-confidence in Germany is a Jewish centre which has been opened in Frankfurt.**

Many younger Jews are challenging the lack of assertiveness of their elders. They want to know why they should be so reticent about their Jewishness.

This emerging self-confidence is reflected in the Jewish Community Centre building in Frankfurt which contains a kindergarten, a primary school and religious, cultural, sports and entertainment facilities.

The building looks just like any other, but it has special security arrangements: bullet-proof windows, for example.

Security accounted for a tenth of the DM32m spent on the land and building costs.

A member of the community's executive committee said the alternative would have been to have built a high wall around the centre. "No one wanted that," he said.

So other steps have been taken. Every hour a police car drives past. When children have finished school or kindergarten, they are all driven away together.

Threats are constantly being made, mostly anonymous but, recently, callers have been identifying organisations they represent.

The community executive calmly said: "Just think of Istanbul or Vienna. Left-wing terrorists, right-wing terrorists, terrorists from the Middle East. The Jewish centre could be a target for any of these groups."

Older people among the community will never get rid of their anxieties, but the self-confidence of the young Jews in Frankfurt is more recognisable in Frankfurt than any other German city.

They are German citizens who acknowledge the state and the demands it makes of them, but they want to protect and underline their distinctive qualities.

German public opinion was made aware of this in the demonstrations against the Rainer Werner Fassbinder play, *Die Stadt, der Müll und der Tod*, staged in Frankfurt in November 1985.

The new Jewish Centre that has been under construction for a long time and has only recently gone into use, has created a new, odd even, situation. It is a development that many Jews, particularly in Frankfurt, are scared about.

The building includes a fair amount of symbolism; cracked tablets on which the Ten Commandments are written, the menorah and the Star of David. It reflects the varied life of a group about which most of its fellow citizens know little.

There is the Jewish primary school. It was established 20 years ago and has places for 120 children in a preparatory class and eight classes over four grades.

The school was previously located elsewhere. It has such a good reputation that many non-Jewish parents have their children educated at the school, although it costs DM350 per month (for members of the Jewish Community the fee is DM250). A quarter of the children and half the teaching staff are not Jewish. The school curriculum is the same as any other school with two exceptions: classes in Hebrew (as a foreign language) and the Jewish religion are held. About a half of the non-Jewish children voluntarily take part in the Jewish religion instruction. There is no question of religious conversion, however. A missionary urge is foreign to the Jewish faith, but it is hoped that the young people taught at the school will one day be ambassadors for a better understanding of Jews and Jewry.

Not hiding behind a wall: the Jewish centre in Frankfurt. (Photo: AP)

Next year two more school grades will be added to the school's programme.

There is a demand for 5th and 6th grades in the school where pupils will be promoted according to their individual ability.

The kindergarten for 70 small children has also been brought into the centre. It would not be easy to find another kindergarten in this country whose routine is so deeply embedded in adult life, whether it is the parents of the toddlers, relations or strangers.

This seems to be more important than the small classes in the kindergarten, the excellent equipment available and the high standards of the teaching staff.

The centre includes a hall seating 600 that can be used as a theatre, concert hall or for birthdays, weddings and other festive occasions.

There are also group and handicraft rooms and a special room with a wall




bar for the centre's much-praised dance group.

In addition the centre has a splendid sports hall, particularly for the Jewish gymnastics and track-and-field association, Makkabi, that takes part in the Frankfurt local football league.

The centre has a council chamber for the Jewish Community parliament, elected every three years.

Last of all there is a windowless disco for the 250 young Jewish people in Frankfurt.

One would like to regard it as all very impressive, but Jews standing in front of the centre do in fact hear passers-by comment: "Look at that, international Jewry is back."

Comments such as these show traces of the old prejudice that assumes all Jews are rich businessmen.

A few Frankfurt statistics throw some light on this.

Seventy per cent of the church tax collected by the city from the Jewish Community comes out of income tax — this is the same for the church tax collected by the state from Christians.

There are between 300 and 400 Jews in Frankfurt who collect social benefits, a Jewish social service that covers for example meals on wheels, out-patients and care for the aged.

There are rich people and poor people among them, and many, many children.

The Jewish birth rate is higher than the German rate, but the social structure is similar.

There is perhaps one difference. Jews in a German city stick together more than do others. Many features in the new centre have been paid for by donations. Subscriptions paid for the DM120,000 menorah in the hall.

The restaurant, open from 11 in the morning until 11 at night, serves kosher food and is a kind of thank-you to the city for its assistance.

This kosher restaurant is an important feature for many Jews from all over the world who come to Frankfurt for various fairs and exhibitions.

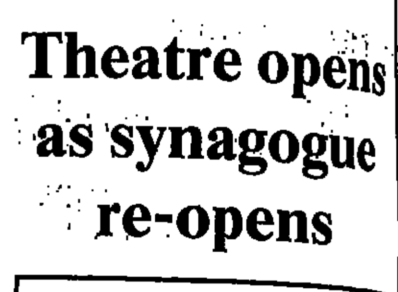
The young deputy chairman of the Jewish Community, Michel Friedmann, listed three functions the new centre serves:

- It provides information to non-Jews and young Jews. He said: "The Jewish child who knows nothing about his national heritage is irritated twice as much when he or she is teased or the subject of hostility."
- It is a place where Jews can enjoy their own way of life. Friedmann again: "Here you can be Jewish, speak Yiddish, eat kosher food and listen to Jewish music — or equally do something else if you want to."
- It is also a refuge. Friedmann said: "Unfortunately many of us need this. The small government official who gets from unknown colleagues a little slip of paper with the latest gassing joke or schoolboys and girls who are with small but effective neo-Nazi cliques — they need to get away to somewhere where they do not feel threatened."

It goes without saying that the proud, new self-assured Jewish Community building will eventually attract latent, muffled anti-semitism, anti-semitism that is certainly not confined to West Germany.

But these people, mainly young people, will know how to take this in their stride. They have to learn not to be so touchy and get worked up as young Germans expect them to do. They have to understand that some Germans have become insensitive. Friedmann, who is a

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# Theatre opens as synagogue re-opens

**Frankfurter Neue Presse**

The Auerbach synagogue has opened again after half a century. The same night, not by coincidence, the first professional Jewish theatre company gave its first performance.

Auerbach forms part of the centre of Bensheim-Auerbach, south of Darmstadt.

The theatre's first play was in German, *Der Puppenspieler von Lodz*, by Gilles Segal.

Both events were designed to reduce the foreignness of things Jewish and to break down the lack of communication between non-Jewish Germans and Jews.

The synagogue was only saved from Nazi storm troopers because it became a workshop owned by non-Jews.

The theatre company will go on tour in an attempt to revive links between German and Jewish culture. But it will not just work towards promoting Jewish theatre traditions.

It will try and promote understanding on a wider plane and try to provide a little enlightenment so that Jews and Germans might be able to get along without embarrassment. That is according to a senior official of the theatre, William F. Lampert.

The initiative for the theatre came from German-Jewish associations in this country plus the major Christian churches.

The Jewish communities held back. Lampert pointed out that this was understandable because of increasing evidence of racism, because of President Reagan's visit to Bitburg war cemetery and because of the staging of a controversial Rainer Werner Fassbinder play in Frankfurt in November 1985.

But Lampert was prepared himself to go ahead. Performances will be limited to works by Jewish playwrights. Many works languish in archives, never having been performed. Among them are some of some significance, he says.

## Plenty of plays

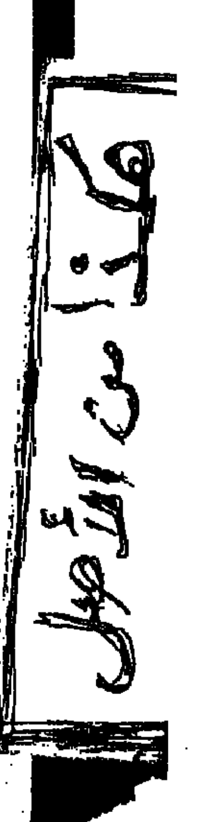
There are enough plays certainly to keep the theatre going for a couple of years. Authors include Jacob Wassermann, Theodor Herzl, Artur Hollischer and Michael Beer.

Different casts will be used and not all the actors will be Jewish. Lampert will accompany some more obscure productions with explanations about features of Jewish culture.

Lampert studied drama in East Germany and worked as a director in the East German centres of East Berlin, Schwerin and Leipzig. But he came into collision with the authorities and came across to the West. In the East he had worked independently and had attempted to establish a Jewish theatre. That was not liked in the East.

He has since worked in Bensheim. Now he has his wish: an independent Jewish theatre company. It was formed under the chairmanship of Professor Alphons Silbermann. The state, city, banks and individuals supported the

Continued on page 11





## ■ TELEVISION

# Regular diet of murder in the living room

Television has increased the public appetite for violence, a TV critics' conference in Mainz has been told.

It had also increased fears. Professor Friedrich Hacker of the Vienna-based institute for research into conflict, told the 300 journalists present that in the Favoriten district of Vienna, many old women did not leave their homes because they were afraid — not of having their handbag snatched, but of being shot or running foul of a big crime organisation.

The women had their food delivered. Neighbours did other errands for them.

Murder, he said, is a common feature of West German living rooms. A viewer might get up from the television to get a drink and return to find an actor or actress dead.

This raised the question of whether the times had become more violent or whether scriptwriters, directors and programme planners in the end just could not think of anything better.

The conference took a fresh look at the violence problem in practice. Journalists gave their opinions and so did television programme planners.

The mainspring of the three days of discussions were two opening lectures.

Professor Hacker maintained that television had increased the public appetite for violence. Responsibility is not diminished by saying that the world is like this.

Television presents a total view of the world through well thought-out strategies. In a culture in which people read less and less television has a greater responsibility.

Hacker ironically noted with regret that television people secretly "wanted to present the end of the world."

He conceded, however, that a burning forest filmed against a dark night sky was for him more interesting than a television discussion on dialetical materialism.

It was all a question of quality. Television news editors were also guilty of banality if they persistently showed politicians arriving and departing, highlighting how often they have to shake hands with every Tom, Dick and Harry.

All too often the "I was there complex" pervades television reporting, forgetting to report events in detail and their significance.

This means that television does not do justice to its responsibilities and that the medium places increasing priority on the crucial role it has in influencing social trends.

Politicans are given the opportunity to present their views just as they will, training viewers to passivity, instead of being on the look-out for new ways of presenting to viewers background information and some idea of how affairs are interrelated.

In his lecture Axel Corti, an editor from Vienna, gave a true picture of viewers who are increasingly having difficulty in coping with reality.

Violence produces a hunger for more violence, he said. "When pornography began to be tedious, this did not set off a 'so what' effect among the public, as expected. Rather specialists arrived on the scene and violence was introduced to give new kicks. Things developed from there."

Corti believes that the same happened to television. People have become slaves to fabrications.

He said: "No-one would publicly admit that he or she wanted to see children being tortured, murder and rape." However that is more and more expected from television.

Warnings that television violence will be emulated are dismissed by reference to the brutality in classic fairytales. Corti said: "Children have rarely thrown anyone into an oven."

Television journalist Heinz Werner Hübner from Cologne, speaking at the end, warned that concentration on the viewing figures had led to a slackening of the reins. This would eventually lead to all programmes being equally bad.

For a long time now television has gone over the brink. The American situation now prevails in early evening programme planning. For a long time children have been given a taste of murder and homicide.

He said that the answer was not censorship. Having no blinkers meant being on the alert against film violence and too much talk on the news about the world being less than perfect.

It is no argument to say that viewers who repeatedly watch violence get a distaste for it.

He pointed out that no-one had ever thrown way his toothbrush after repeatedly watching a beautiful women in a television advertising spot clean her teeth.

*Michael Vogt*

(Allgemeine Zeitung, Mainz, 23 October 1986)

Continued from page 5

process. The OECD's regular economic surveys and forecasts have been particularly useful. They have helped industrialised countries elaborate feasible economic strategies.

The activities of the organisation's development aid committee have made sure that the complex problems of Third World aid are taken into account by these strategies and that at least five industrialised countries have exceeded the accepted development aid target of 0.7 per cent of each industrialised country's GNP.

Satisfied at the OECD's achievements insiders often jest "If the OECD didn't exist it would have to be invented".

One thing is for sure: it is difficult to imagine today's economic policy discussions without the OECD.

Nevertheless, many OECD initiatives were strongly criticised.

Its campaign against the duty of banks not to divulge information on its customers and efforts to create a transnational fiscal police force were dismissed by Swiss experts as classic case of well-meaning but erroneous objectives.

The OECD has also frequently been criticised as a paper tiger bogged down in red tape.

OECD experts quite rightly claim working in the organisation is like drilling your way through a thick board: you need plenty of perseverance.

One of the ministers who had attended numerous OECD conferences in the past was more modest; his conclusion: "It's definitely worth the effort providing no damage is done".

*Jörg Foschag*

(Hannoversche Allgemeine, 8 November 1986)

## ■ FILMS

# Festival hopes to discover unknown female talent

**KielerNachrichten**

When the Women's Film Festival began in 1984, the intention was simple: to show films and videos made by women.

Biddy Pastor, one of the initiators, says it was not the aim to show films allegedly made for female consumption. Discovering the small-time and the unknown was the intention.

The first festival had a budget of only DM10,000 and had only eight fledgling film-makers. But it was immediately obvious that there was a demand for such an event.

This year, the third festival was staged in Cologne with a budget of about DM80,000. Cash came from many sources.

There were films from Austria and Switzerland as well as West Germany. Next year it is hoped that films from France, the Benelux countries, Britain and East Germany will be included.

This all depends on whether the cash can be raised. Cologne, a city of the media, should not have to be asked twice.

The "Feminale" as the festival is ironically called, echoing the Berlinale and Biennale, was from the very beginning media-oriented.

*The festival of films and videos from* independent women directors also included exhibitions, lectures and workshops.

The films and videos shown covered the whole range from short experimental films to full-length documentaries.

At the opening, Biddy Pastor said that the accent this year had been changed from a "contemplation of the naval" to wider issues.

This widening of horizons was evident this year in various films, obviously in the main in the longer productions.

The Austrian contribution *Kuchengespräche mit Rebellinnen*, made by Karin Berger Elisabeth Holzinger, Charlotte Podgornik and Lisbeth N. Trallori, highlighted the historical angle.

The camera work in this documentary was unsatisfactorily simple. It told the story of four women in the Austrian resistance, describing their unending courage.

Susanne Zanke also dealt with the resistance movement in Austria in her *Eine Minute Dunkel macht uns nicht blind*.

This film tells the story of the architect Margarete Schütte-Lihotzky who in prison came in contact with a new solidarity among women. Other films gave an insight into other countries. *Jeder Tag Geschichte* by Gabrielle Baur and Kristina Konrad is a convincing documentary about daily life in Nicaragua, showing the advances made by the revolution and the difficulties it has encountered.

Cornelia Schlede in her *Dar El Naeim — Slum zum Paradies* portays the lives of three women working on a development aid project in Port Sudan. This film is a cautious and frank approach to the circumstances governing the lives of others.

While in the main the documentary and traditional forms of narration prevailed, some of the short films included in the programme showed an inclination, along with the pluck, to dabble in new forms; films with dream characters and experiments with sound and cutting.

This year's Feminale was also the occasion for a meeting of the women film-makers association. The association is considering making a complain about the constitutionality of the new film promotion legislation enacted by the Bonn government, since demands that there should be an equal representation of women on committees remain disregarded.

The consequences of such legal action, should it be disputed, would be a never-ending conflict about equal rights in the film industry.

Half ironically it was said at Feminale: "We shall achieve real equal opportunities if mediocre women have management positions."

*Danielle Krüger*

(Kieler Nachrichten, 24 October 1986)

Continued from page 10

first production. Bensheim will be the home base for the touring theatre company that will be signed up to perform in other theatres.

A lot was expected from the first performance from critics, culture experts and emigrants from abroad.

These expectations could not hope to be filled because of personnel difficulties and a small budget of only DM16,000. The theme of the play was also difficult to handle.

Like its author, who lives in France, *Der Puppenspieler von Lodz* is a survivor from persecution. The puppeeter remains marked by his horrific experiences in concentration camps.

He escapes from a concentration camp and locks himself up, symbolically, in an attic because he did not believe the war would end.

His marionette theatre, in which his wife is personified, is his fantasy world to which he surrenders his fate and hopes.

A former comrade in suffering could rescue him, get him abroad. Germany cannot be trusted.

Lampert's production has a few breath-taking scenes with some mischievous comic elements.

The marionettes bring in a sense of sadness. One of the most impressive characters in the play was the dumb puppet Anna Kaiser rather than the main actor Michael Gabel.

He is the nice young man from next-door, certainly not a person marked out by destiny.

Allowances must be made for the short time available for rehearsal.

Lampert's professional production and setting were unnecessarily given an amateur air. The attic was disquietingly true to detail.

The second production is already in rehearsal, a play by Max Zweig on South American ethics and morals.

*Elisabeth Regge*

(Frankfurter Neue Presse, 30 October 1986)

■ THE ENVIRONMENT

# Rhine ecosystem damage is 'devastating'

SüddeutscheZeitung

Chemical pollution of the Rhine downstream from Basle after a fire at Sandoz, the Swiss chemical company, has caused mass death of micro-organisms in the river.

Tests of water samples taken as far downstream as Mainz and Wiesbaden are said by the Environment Ministries of the Rhineland-Palatinate and Hesse to have revealed the death of small river creatures on which fish feed.

They include river crabs, water fleas, lice, beetles and larvae. "Devastating" was the verdict of Marlene Mühe, spokeswoman for the Rhineland-Palatine Ministry.

Environment Minister Klaus Töpfer says there is a danger of long-term damage to the Rhine's eco-system — even though fish might not have died in the Rhineland-Palatinate as they did further upstream in Baden-Württemberg.

Rhenish waterworks that filter water from the river have been warned and have taken precautions, so drinking water supplies are unlikely to be affected.

Herr Töpfer said laboratory analysis of the flesh of dead eels washed ashore had shown a disulfoton count of 0.77 milligrams per kilogram, as opposed to a normal level of 0.01 milligrams.

He advised against fishing in the river at present, let alone eating fish caught in the Rhine.

Hesse Environment Minister Joschka Fischer plans to invite chemicals companies based in his state to confer with the authorities on the lessons to be learnt from this latest case of pollution and on precautions to be taken in respect of the firms' fertiliser depots.

These depots can, as shown in Basle, be "an incalculable ground water hazard," says Ministry spokeswoman Christiane Kohl.

Water resources up to and including the food cycle are threatened, she says.

The wave of pollution between 70 and 80km (50 miles) long heading downstream from the Swiss border reached North Rhine-Westphalia on 7 November.

A spokesman for the Environment Ministry in Düsseldorf said dead fish had not yet been reported and he was not sure whether they would be.

The business manager of the Rhenish waterworks association, Klaus Lindner, said heavy pollution, especially ester phosphate, had been reported.

All waterworks had stopped using water filtered from the Rhine.

The Cologne EPA advised against letting children and dogs play on the banks of the river for a few days. Water sports enthusiasts would do well to take it easy for a while too. Dead fish washed ashore should not be touched.

The Bonn Federal government accused the Swiss authorities of delay in notifying it of the pollution.

Bonn government spokesman Friedhelm Ost told journalists in the German capital that Switzerland had not raised the international alarm agreed in such circumstances.

He was reported as saying German firms were also to be required to review the precautions envisaged in emergencies of this kind.

The Swiss government was expected to submit in about a week the report requested on the causes, course and effect of the fire and the pollution of the Rhine.

A copy would also be submitted to the French authorities.

The Social Democratic parliamentary party called a special session of the Bundestag environmental affairs committee.

Volker Hauff, deputy SPD leader in the Bonn Bundestag, accused the government of withholding information.

He said the Environment and Transport Ministers had "gone into hiding." The Rhine was known to be partially dead already. There could be no alternative to making precautions mandatory in the chemical industry.

About 20 waterworks between Basle in Switzerland and Emmerich on the Dutch border are reported to be considering damages claims against Sandoz.

Bonn municipal official Reiner Schreiber said damages in the Federal capital would amount to tens of thousands of marks.

The Rhenish waterworks association was also considering jointly suing Sandoz. The fish trade might well follow suit, eel breeders having invested heavily in the river.

The Swiss Foreign Ministry has presented an initial report on the repercussions of the Sandoz fire to the embassies of France, Germany and Holland in Berne.

Ministry spokesman Clemens Birrer said the report outlined the latest information available to the Swiss authorities.

*Klaus Brill*

(Süddeutsche Zeitung, Munich, 8 November 1986)

# East Bloc begins to act as pollution plays havoc

Lunar landscapes of dead forests and lifeless rivers and lakes are typical of Eastern Europe's environmental problems, according to a report published by the Friedrich Ebert Foundation in Bonn.

So is drinking water so polluted that it can no longer even be put to industrial use. So are entire villages that have had to be abandoned on health grounds.

Shocking examples are listed that disprove the claim, made for years in the Soviet Union and East Germany, that only capitalism is incapable of solving environmental problems.

It clearly makes no difference to flora and fauna whether they are the victims of capitalist profit orientation or communist plan fulfilment.

The situation would appear from the report to be worst in Poland and Czechoslovakia.

The Polish Academy of Sciences estimates annual environmental damage to amount to 500 billion zloty, or roughly 10 per cent of Poland's gross domestic product.

The Upper Silesian industrial area, which includes the Nowa Huta and Katowice steelworks, is reputed to be the most seriously polluted zone in Europe.

All Upper Silesia is said to be covered in industrial dust. The number of retarded schoolchildren has increased at such a rate that eating fruit and vegetables grown in miners' allotments has had to be prohibited.

Samples have been found to contained 220 times the amount of cadmium, 165 times the amount of zinc and 135 times the amount of lead permitted.

Several villages have had to be abandoned in the Lublin copper area. Eighty per cent of sewage is still pumped untreated into rivers and lakes.

Some Upper Silesian rivers and lakes are already as salty as the Baltic where, in Danzig Bay, the water is largely toxic.

Similar reports are received from Czechoslovakia, a country poor in water resources where entire categories of flora and fauna are threatened with extinction.

In Bohemia about 400,000 hectares of woodland have been totally destroyed. In the Erzgebirge hills scarcely a single tree survives at altitudes higher than 900 metres (2,950ft).

Supplies of safe drinking water can no longer be guaranteed. In Prague babies under the age of one are not even allowed to drink boiled tap water.

Yet the city's drinking water has long ceased to be taken from the Moldau, which is far too heavily polluted for safety's sake. Water is pumped from the Zelivka, 80km (50 miles) away.

In East Germany only 17 per cent of main waterways can still be used as sources of drinking water. East Germany, included in Eastern Europe for the purposes of the report, suffers mainly from brown coal combustion and inadequate purification of industrial effluent and domestic sewage.

The Friedrich Ebert Foundation, which is closely associated with the Social Democratic Party, reports increasing environmental awareness in all Eastern European countries but Rumania.

Environmental campaigners in Rumania can still expect to be tried on criminal charges. Since 1984 President Ceausescu has combated the effect of pollution on historic monuments by wholesale demolition.

Growing awareness of environmental issues among Soviet party and government officials has been noted in the USSR, especially since Mr Gorbachov assumed power.

Public discussion of environmental issues is growing increasingly frank and outspoken in the Soviet Union.

Soviet leaders say 7,000 filtration units have been installed over the past 10 years to reduce static emission, while pollution in effluent form has been reduced by a third.

East Germany is claimed in the survey to be a country genuinely prepared to actively prevent further environmental destruction by both domestic measures and international activity.

Since last year a growing number of East German scientists have criticised self-satisfaction and called for higher investment in environmental protection.

Church groups are said to have played a leading role in promoting this growth in environmental awareness.

Poland and Czechoslovakia are no longer ignoring environmental problems or disregarding them in media coverage, but measures so far undertaken are said to be unlikely to be enough to remedy the damage already done...

Bids to rescue the Erzgebirge by planting pollution-resistant varieties of birch and poplar seem more of a despairing gesture than a serious attempt to provide effective environmental protection.

*Gerd Rauhaus*

(Nürnberger Nachrichten, 7 November 1986)





■ MEDICINE

# Doctors look at the possible causes of schizophrenia

The old scientific argument of whether mental illness was due more to hereditary or to social factors has proved of little practical benefit.

Several factors have unquestionably been shown to be to blame for schizophrenia at least, with the latest techniques revealing more and more about factors in the biological category.

This biological sector of a much more far-reaching phenomenon, schizophrenia, was the subject of a Dahlem conference in Berlin at the end of October.

Over 50 scientists from various disciplines and all over the world outlined the latest state of research and, more particularly, the aspects on which they felt further research is needed.

Schizophrenia, generally — and most inaccurately — known as a "split personality," is an endogenous psychosis accompanied by various symptoms, including hallucinations, ego disturbances and feelings of madness.

The course it can take may vary widely: progressive, coming to a sudden halt, steadily worsening and ending in the most serious mental upset or in a cure after only a handful of stages.

About one per cent of the population, or well over half a million people in the Federal Repuzblic of Germany, are either suffering from schizophrenia or will do so at some stage of their lives.

Close relatives are known to be higher-risk cases, so there may be said to be a higher family frequency even though the complaint is not a hereditary one.

Medical textbooks and reference works still say what causes schizophrenia is totally unclear.

The one-week Dahlem conference made it clear that three sectors might play a part in the causes of the complaint and the forms it takes. They are:

- genetical factors
- physical causes
- social and mental aspects.

Bonn human geneticist Peter Propping said all disciplines concerned were now agreed that genetics played a part. Studies of twins and families had proved the point.

What was still not clear and remained to be investigated was which and how many defective genes contributed toward the complaint.

A single, specific genetic factor was unlikely to be to blame. The main target of further research must be to identify genetic markers.

By these he meant diagnostically identifiable deviations in genetic information that invariably occurred both in schizophrenic patients and in people who had yet to suffer from an outbreak of the complaint.

It remained to be seen whether an early warning technique might not one day be devised as a result.

One indicator has long been known. Roughly 80 per cent of schizophrenics have slow (as opposed to the normal rapid) eye movements.

From a certain age this phenomenon can be identified by means of complicated procedures. It occurs in a mere eight per cent or so of healthy individuals.

Long-term surveys of people in this "risk group" category began several years ago, the most comprehensive being carried out by Professor Erlenmeyer-Kimling in New York.

It will be years before the crucial question can be answered. It is whether slow eye movements occur to the same extent with people who at the time of testing are still healthy.

If this is the case slow eye movements would with sufficient probability be a pointer to latent schizophrenia.

Non-genetic factors might include psycho-social aspects, but less as an originator than as an influence on the course of the illness, said Hanfried Helmchen.

Professor Helmchen is director of the Free University of Berlin's psychiatric clinic.

Studies existed that established a clear connection between setbacks in the patient's personal life and schizophrenic waves.

There might also be a connection between psyche, immune system and worsening of the patient's condition.

But many studies that had looked into factors of this kind as the cause of the complaint had failed to produce satisfactory findings.

There were more convincing findings, Professor Helmchen said, in respect of physical non-genetic causes of schizophrenia, such as negative influences before and during birth, probably including a deficiency in oxygen supply to the brain.

Brain complaints were at times diagnosed in adults in connection with schizophrenia, which as a rule occurred unconnected with anatomical brain defects.

Amphetamine, a pep pill often known as speed, had been found to give rise to symptoms similar to those of chronic schizophrenia when taken over a long period.

So there could be no ruling out the existence of a number of toxins that played a part in triggering the illness.

Further research must, he said, concentrate on identifying a common denominator, such as various factors attacking the same parts of the central nervous system at the same time.

Only once greater clarity had been established on points such as these could it be said with greater certainty which physical causes heightened the risk of suffering from schizophrenia.

Two other tenets were, he said, highly speculative but most interesting. They were:

- that schizophrenia was in part an acquired immune disease, one in which the body destroyed its own immune system;
- and that certain viruses were partly to blame.

Antibodies for certain viruses had been identified in quantity in some schizophrenia patients, but that alone was not conclusive proof.

Professor Tim Crow, a British specialist, sought to reconcile the genetic and virus hypotheses. Certain genetic factors might, he said, become independent and take on the character of viruses.

A likelier hypothesis on which little research has so far been conducted is that "decent" brain changes involving chemical messengers known as neurotransmitters might have something to do with the outbreak and course of schizophrenia.

One of the most important results of the Dahlem conference, says Professor Helmchen, is that further progress, possibly leading to improvements in therapy, seem well within the realm of possibility.

But research of this kind will inevitably be very expensive, take a long time and accordingly require extra financial backing.

*Justin Westhoff*

(Der Tagesspiegel, Berlin, 1 November 1986)



# Warning against dieting purely to look better

The more Germans go on diets, the fatter they grow, says Göttingen nutritionist Volker Pudel, who plans to prove his point in a three-year research project.

The Federal Research Ministry has approved a DM400,000 grant toward the cost of the project.

Laboratory experiments are to check whether the diets many German women try out from time to time are not the cause of serious weight problems and upsets in eating habits.

Professor Pudel, who heads the nutritional psychology research unit at Göttingen University, says nearly all diets increasingly fail in the long term.

Blitz or crash diets in particular do serious medium-term damage.

The body adapts in a fairly short time to the lower food intake, he says. It starts saving energy and in some cases makes do with 50 per cent of its previous energy requirement.

Once a crash diet has been abandoned this energy-saving reaction leads to a substantial weight gain despite a normal calorie intake.

That, Professor Pudel says, is the beginning of a vicious circle for many people keen to lose weight. He advises against slimming for purely cosmetic reasons.

*pid*

(Der Tagesspiegel, Berlin, 1 November 1986)

# Immune-system suppressant in diabetes research

Cyclosporin A, a drug administered after organ transplants to suppress immune response and prevent rejection of the transplanted organ by the body, has been used against diabetes.

Promising initial results have been achieved with newly registered diabetics requiring insulin treatment.

Cyclosporin A has helped them to maintain their output of the vital hormone — insulin — and to generally improve their metabolism.

It will be three to five years before we know whether the drug can be generally used to treat diabetics, says Dr Hubert Kolb from Düsseldorf. Diabetes expert Professor Kolb told a Karlsruhe therapy congress Cyclosporin A must regulate the patient's insulin production to ensure that the output is just enough.

He assumed the drug must prevent the destruction of insulin-producing beta cells in the pancreas or at least lead to regeneration of damaged beta cells.

Diabetes is caused among young people by an immune inflammation of the pancreas in which beta cells are destroyed.

*dpa*

(Frankfurter Rundschau, 1 November 1986)

■ FRONTIERS

# Steel firm denies maltreating foreign workers: story 'a fantasy', court told

Günter Wallraff is an investigative journalist whose exposes have made him a hero or a villain, depending on the point of view.

His method has been to get hired by companies posing as a worker and collect evidence, sometimes using aids like hidden cameras.

He has reported in this way on several cases including a newspaper's news gathering habits and an insurance company's methods.

His latest effort is a book called *Ganz Unten* (At the Very Bottom) which reports on how Germany's biggest steelmaker, Thyssen Stahl, treated some Turkish workers.

The book has been a runaway bestseller with nearly two and a half million copies sold so far and translations into 18 languages either completed or planned.

Some of Wallraff's descriptions are graphic: "in no time it (the dust) is so thick that you can't see your hand in front of your eyes. You don't breathe the dust in any more, you swallow it and eat it. It chokes you. Every breath is torture. Three hours. That means breathing in 3,000 times. Which means pumping the lungs full of coke dust . . . in between you try and get your breath back, but there is no escape because you have to work."

Now, more tha a year after publication, the steelmaker is hitting back. It is suing. It says *Ganz Unten* is a fantasy. It wants a court in Düsseldorf to halt further publication and distribution.

In another passage, Wallraff, who does have witnesses to back his charges, tells how workers at the steel plant were required to keep on working despite emergency sirens and red lights indicating danger and that workers should leave the area.

An illuminated notice warned that during a particular process, oxygen might escape and that this could lead to an explosion. But the workers had to keep on working.

He alleged that a Thyssen man had told a Turkish worker who became frightened and wanted to leave the area that if he did, it would be taken as a refusal to work and he would be dismissed.

Thyssen Stahl claim that Wallraff's descriptions are based on a jumble of assertions and a misunderstanding of the warning system.

For these statements and a whole series of others Thyssen Stahl are seeking the injunction against Wallraff after a month of haggling about the formation of an independent committee of inquiry ended inconclusively.

Both sides complained that the candidates proposed by the opposing side, maintaining they were either not competent enough or biased.

Thyssen Stahl want to damage Wallraff's reputation as a serious investigative journalist. However, Wallraff himself stresses that he has so far defended his book in five court actions and not been defeated once.

But he has "voluntarily," as his Cologne publishers Kiepenheuer & Witch put it, made alterations to two chapters, alterations that did not concern Thyssen Stahl.

He made these alterations because he had taken material from other sources, without acknowledging that he was quoting from someone else.

These embarrassing borrowings raise the suspicion that the book was written in a hurry, helped by unnamed co-authors and written without too much concern for precision.

No matter what happens the Düsseldorf court action cannot influence the political effects of the book.

No other book since the end of the war has been the subject of so much public discussion about the scandalous state of affairs in industry. *Ganz Unten* will undoubtedly have wide-ranging consequences in the working world.

Wallraff, disguised as as a Turkish worker, named Ali, armed with a tape-recorder and a concealed video-camera, showed how badly Turkish guest workers in the Federal Republic are treated.

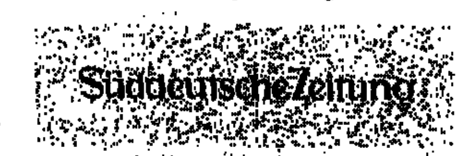
He also threw light on the gangs of modern slave-traders who operate as labour subcontractors. They sign up the guest workers literally on the street and send them off in running shoes and T-shirts, often without social benefit coverage and at rock-bottom pay into West German factories.

There they are given the most dangerous and the filthiest jobs that no German will take on.

No-one is now concerned whether Wallraff is accurate in detail. What is accepted is that overall he was right.

Wallraff himself has described the public effect of his book. He said: "It has created a stir. People who preached xenophobia are not so sure of themselves any more. Many Turks have told me that Germans now try to talk to them and invite them out."

He is right. Since *Ganz Unten* was published on 22 October last year it has sold 2.25 million copies, breaking all previous records in German publishing. It has been




translated into 18 languages, a phenomenon that still puzzles the experts.

Wallraff has attracted a readership far beyond left-wing intellectuals, primarily among workers who usually never read a book.

Since the book appeared everyone is talking about it. Schools study it in class and Wallraff goes from one public reading to the next.

A Bonn boutique owner was so moved by the fate of the Turks, who have until now stood in the shadows and never been noticed, that she has taken on a young Turkish girl, despite the fact that some of her customers have turned up their noses at this.

Taxi drivers in Duisburg, where Thyssen Stahl is located, have asked the company for a brief about the situation, because, they claim, their foreigner fares continuously ask them about conditions in the factory.

The book has also stimulated considerable discussion among trades unions. They are now turning to the problem of their foreign worker colleagues far more than they have done in the past.

Before publication of the book a senior engineering and metalworkers union official, IG Metall, regarded as unreasonable the request to make a trip from Frankfurt to Cologne to look at the Wallraff material.

Since the book's success the same official has recommended that Wallraff should be offered the Order of the Federal Republic to make up for his previous lack of support. Wallraff declined.

The book has made the most significant changes in the working world. Employment Minister Hermann Heinemann (SPD) in North Rhine-Westphalia, for instance, has spoken of the "Japanisation" of the German labour market. This has become the subject of extensive discussion in political circles.

The book has also highlighted reductions in the permanent workforce in factories and the meteoric growth in the number of employment agencies that fill vacancies with cheap labour.

It is estimated that there are 1,600 firms of this type currently operating.

The conditions that Wallraff described will be more mercilessly prosecuted than before, but In the meantime conditions in many firms have improved.

First of all at Thyssen Stahl. Despite the court action Thyssen Stahl has admitted that the book has in some areas brought about changes.

Thyssen Stahl spokesman Lutz Dreesbach said: "Naturally Wallraff has had an effect on us. Before the book was published we were having talks with factory safety officials, but since the book's appearance things have been speeded up so that conclusions can be reached."

Minister Heinemann has got agreement in writing from Thyssen Stahl, Mannesmann and the iron and steel industry employers association that a sharper supervision is to be given on work conditions for workers recruited from labour subcontractors, ensuring that there is proper maintenance of industrial health and safety standards, that proper hours are worked and that social security benefits are provided in accordance with regulations.

Thyssen Stahl has laid down that there will be no difference in safety standards offered their own employees and workers employed by subcontractors.

A spokesman for Minister Heinemann, Manfred Oettler, said: "If it had not been for Wallraff's book we would never have been able to come to an agreement with Thyssen Stahl."

Since December 1985 Thyssen Stahl have given 668 verbal and 17 written warnings to subcontractors. In 174 cases involving subcontractors production was called off because of grave infringements of safety regulations. In nine cases subcontractors were sacked.

The number of temporary workers taken on has been throttled back from 1,300 per day to about 1,000.

From the beginning of 1987 new terminals will be installed at the works' gates so that working time can be controlled exactly.

Wallraff quoted an extreme case of one worker who slaved away for 39 hours without a break.

The deputy chairman of the Thyssen Stahl workers council, Heinz Karnitzschka, is full of praise for Wallraff, despite a few minor details that do not stand up when examined closely.

He said: "The book has, of course, helped us enormously to get things done. A few members of the workers council have become more understanding."

Karnitzschka admits that he was himself shaken when the book appeared. "It was shocking to read the descriptions of hatred


If you've got a works, I've got a spanner... Wallraff, (Photo: Sven Simon)

for foreigners and the shameless exploitation of foreign workers. Wallraff held up a mirror for us to see how things were."

Twelve of Wallraff's former colleagues, when he was masquarading as a Turk, have been given permanent jobs by Thyssen Stahl. Two foremen have got to appear before a Duisburg court.

Employment Minister Heinemann has ordered that rigorous controls should be applied to labour subcontractors. A special six-man team has been set up at the factory safety and health office in Duisburg, that has combed through the state step by step, aided by local officials on the spot.

The team's findings confirmed what Wallraff described. The deputy head of the safety office in Duisburg, Hans-Egon Glomster, said: "We have established that in 60 per cent of cases there have been infringements of factory health and safety regulations."

According to Heinemann the team unearthed infringements in the factories of 28 major companies inspected.

In 311 cases there were grave infringements of the regulations governing hours worked, and in more than 100 cases there was inadequate health and safety protection.

One example: subcontractor workers were found on a factory roof, working next to a chimney emitting hydrochloric acid fumes, without any protection against inhaling the fumes.

Minister Heinemann said that there are about 2,000 cases sub judice against illegal firms that "rent out workers."

It is estimated that the social security office in North Rhine-Westphalia is swindled of DM760m annually in contributions by their operations.

Frequently illegal labour subcontractors have contacts with drug trafficking, counterfelters, prostitution and gambling.

Draft legislation by Heinemann for radical limitations and controls on labour subcontractors with drastic fines and prison sentences of up to a year for abuses, is unlikely to get much of a hearing in Bonn.

Wallraff is now working on new material for a sequel to his book.

His royalties for *Ganz Unten* total DM1.7m. With this money he proposes to put into action a plan for a German-Turkish housing project for 200 people in the old part of Duisburg.

Wallraff himself has moved with his family to live near Amsterdam after the police raided his Cologne home in July because in Munich he was being investigated for an abuse of confidentiality.

Wallraff said: "I get many threats. The search was the last straw."

*Hans-Ulrich Jörges*
(Süddeutsche Zeitung, Munich, 3 November 1986)



■ SPORT

# Corks pop, bulbs flash as a soccer legend turns 50

**Uwe Seeler scored 42 goals in 72 internationals between 1954 and 1960 for the West German soccer team. For the last few years, he was the captain. The solidly built centre-forward, in the days before they became strikers, always led from the front and the call from the terraces of "Uwe! Uwe!" soon became a battlecry that was taken up far beyond his native Hamburg. Seeler was a great header of the ball and scored a lot of his goals that way. One observer recalls a typical goal for Hamburg in a Bundesliga match: "HSV (Hamburg) took a corner. Uwe was on the far side of the penalty area. He jumped for the ball and, as he headed it, screwed it with a sharp, sideways motion. The ball appeared to take off on a tangent away from the net. The opposing goalkeeper certainly thought so, and made no great attempt to follow it. But suddenly the applied screw took effect, and the ball began to curve. It went in." Seeler played for no other club. He is a Hamburger through and through, with one of those accents that speech imitators like to get their tongue around. He is one of those sportsman who has retained the popularity of his playing days. This week he turned 50. He was given a reception at the town hall; a television company put on a gala evening to mark the occasion and Hamburg port officials elected him an honorary harbourmaster.**


'The ball has to go in, it doesn't matter how' . . . Uwe Seeler puts another one away. He scored more than 1,000 in top competition. (Photo: dpa)

Uwe Seeler was probably not all that happy at having to go to an evening in his honour at Hamburg town hall to mark his 50th birthday. There were about 500 there. Franz Beckenbauer, his old teammate made it. So did Otto Waalkes, Germany's stand-up comic, and film director Jürgen Roland.

Probably, Uwe would have rather been at home celebrating privately. But he's never been one to run away from anything uncomfortable. He knows his duty and so he braved the bunting and the red carpet and the hullabaloo.

He's more than a piece of football history. His popularity is so high that only Max Schmeling and Fritz Walter (captain of the German soccer team which won the World Cup in 1954) are in the same league. Later champion performers like Beckenbauer, swimmer Michael Gross and tennis player Boris Becker still have a lot to do to catch Uwe.

Because popularity is not just a matter of being successful. Seeler's soccer career was not just a succession of successes. He didn't play in any World Cup-winning team or any European championship side.

His greatest success was ironically also one of his most bitter disappointments: he was captain when West Germany was beaten 2-3 by England in the final of the 1966 World Cup at Wembley, in London.

The difference between the sides was a disputed goal. England's third goal was freakish. The ball struck the the cross bar and rebounded to earth either over the line or not, depending on your point of view. There is a famous photograph showing Seeler trudging from the field after the match, head sunk low over his chest.

In domestic competition, he had to be satisfied with one championship (in 1960 with Hamburger Sport Verein, HSV, the only club he played for) and a cup win in 1963. Neither were the Seeler years the club's best years.

But he played in four World Cups (1958, 1962, 1966 and 1970); played 72 times for Germany and scored 43 goals. He played nine years for Hamburg up to 1963, when there were regional leagues, and the championship was decided on playoffs, and nine years afterwards when the Bundesliga was formed,.

He was the first goal marksman of the Bundesliga with 30 in 30 games in that inaugural 1963-64 season. He scored more than 1,000 goals for Hamburg.

His popularity stems from both his on-the-field performances allied to his battling style, his honesty and directness. Fame didn't go to his head. He once observed: I am who I am and couldn't be anything else.

He played his first international match just three months after Walter's team had won the World Cup in Switzerland in 1954. In 1972 he bowed out in a farewell game between West Germany and a World XI in the Hamburg Volksparkstadion.

In between he was a centre-forward (before they were called strikers) of the highest quality: a fighter, a toiler. He never spared himself. It was always 90 minutes of nose to the grindstone. His motto was: "The ball has to go in the net. Doesn't matter how."

Another fact that endeared him was his loyalty to Hamburg. Not many other top-level professionals can have stayed all their playing lives with the same club. But Seeler did. Before him, his father, Erwin, had also played for Hamburg.

Seeler, known as "der Dicke" because of his solid, squat build, was wanted by Spanish and Italian clubs in 1960 and 1961. He thought long and hard about it, but in the end decided to stay.

"I had to think for a week about the Inter-Milan offer — a million marks for three years. But I never regretted staying in Hamburg. Keeping your feet firmly on the ground also has its rewards." He was always a businessman during his soccer career. He and his wife (they have three grown-up daughters) together run their sportswear business Uwe Seeler Moden. They are the local wholesalers for a major supplier. They employ a dozen employees, but Seeler plays the boss as little as he did in his playing days.

He always has to be at the front where the action is — at his desk or in the warehouse.

In his spare time, he plays with a celebrity team ("exactly as I used to, only slower") to raise money for muscular dystrophy treatment, and visits a prison on behalf of a rehabilitation organisation.

And he is a critical observer of the soccer scene. He doesn't begrudge the players the money they get these days, but says: "They should work hard for it for 90 minutes on the field." When Seeler was playing, that sort of performance was a matter of course.

*H.G. Martin*
(Rheinische Post, Dusseldorf, 4 November 1986)

Continued from page 10

CDU Frankfurt city councillor, said that the Centre was a sign that for these young people the city and the state were home for them and would remain so.

He said: "It is little known that some young German Jews voluntarily serve in the Bundeswehr for their national service, although the children of people persecuted by the Nazis are automatically exempt from service."

He continued: "It would be a shame if in the end these young people were painfully disappointed and embittered."

*Joachim Neander*
(Die Welt, Bonn, 4 November 1986)

# Boris keeps on winning, all the way to the bank

Boris Becker has won the first Paris Open title, an indoor tournament, to complete a hat-trick of grand prix tennis wins in three weeks.

He began the run by beating Ivan Lendl in Sydney to pick up 75,000 dollars. Then he beat Stefan Edberg in Tokyo and earned 60,000 dollars. He cleaned up another 100,000 dollars by beating a Spaniard, Sergio Casals 6-4, 6-3, 7-6 in two hours and 18 minutes in this inaugural Paris event.

So far this year, Becker has collected 774,324 dollars, second only to Lendl's 977,537 dollars. It was Becker's sixth grand prix win this year and his ninth overall, and now he goes on as favourite to the finals of the Masters tournament in New York, where the eight best in the world fight it out at the beginning of next month.

(There is another indoor tournament at Wembley, in London, which Becker is likely to miss. In addition, it is reported that he has asked his handlers not to commit him for exhibition events in the meantime. He wants nothing to interfere with his aim of becoming the world's number one. — Ed)

Björn Borg said after the Paris tournament that Becker might become the number one player next year. The five-time Wimbledon winner said that so far, Becker had handled everything brilliantly. He knew what he had to do: keep on doing what he had been doing.

He certainly knew what he was doing against Casal in the Omnisport Palais before a packed house of 15,000. Casal, a 23-year-old Catalan, is a relaxed and stylish player who at one stage last year was 30th in ATP rankings. He had


No nerves, just points . . . Boris Becker (Photo: dpa)

dropped to 100th before Paris and was forced to qualify.

Becker had some luck right at the start when Casal lost the chance of breaking Becker's service by netting two simple volleys.

In the ninth game, with Casal serving, Becker had three set balls, but was unable to hammer the nail home. In the next game, he pulled out his seventh ace to take the set in 38 minutes.

Applause was restrained. The crowd was hoping for a win by the underdog, who had sensationally beaten John McEnroe in the quarter final and then Tim Mayotte, another American in the semi final.

Becker's first big test had come in his semifinal against Frenchman Henri Leconte, although he dropped a set in coming through 6-2 3-6 6-3.

In the final, Becker did not allow Casal to put him out of stride in the second set. In the fifth game, he broke the Spaniard's service and took the set 6-3 with a superb backhand passing shot.

The third set was tense. Becker lost his service in the first game, the only time he lost it in the match. He broke back to make it 4-all and they went to the tie-break where Becker showed again that his nerves are among the best in the game. He served aces number 21 and 22, which brought him to match-ball. He won the point; the tie-break, 7-3; the set, 7-6; and with it the match.

Afterwards, Becker said these three wins one after another were his greatest success next to his two Wimbledon titles.

"I didn't think I could do it. I was not surprised by Casal's performance. Anyone who beats both McEnroe and Mayotte must be able to play."

Casal said: "In the third set Boris was tired. But so was I. The thought of being forced to play another two sets was just too much for me."

*Alexander Hofmann/dpa*
(Rheinische Post, Düsseldorf, 3 November 1986)